

厚生労働科学研究費補助金
労働安全衛生総合研究事業

アジア新興国の労働者の安全衛生の取り組み促進の
支援に係るニーズ等の把握のための研究
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総括・分担研究報告書

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目次

総括研究報告書

アジア新興国の労働者の安全衛生の取り組み促進の支援に係る
ニーズ等の把握のための研究

研究代表者 森 晃爾

分担研究報告書

1. ベトナムにおける安全衛生の取り組み促進の支援に係る 実態及びニーズ調査

研究代表者 森 晃爾

研究分担者 Odgerel Chimed-Ochir

研究分担者 石丸知宏

2. ラオスにおける安全衛生の取り組み促進の支援に係る 実態及びニーズ調査

研究代表者 森 晃爾

研究分担者 Odgerel Chimed-Ochir

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総括研究報告書

アジア新興国の労働者の安全衛生の取り組み促進の支援に係る ニーズ等の把握のための研究

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研究要旨:

アジアの新興国に対して、各国の産業構造、人口構造、制度や文化などに伴うニーズに合った労働安全衛生に係る支援を行うために、国ごとに存在する支援ニーズを調査することを目的とした3年間の研究期間の最終年度である。

今年度は、調査対象国をベトナムとラオスとした。COVID-19 のパンデミックによって現地訪問が困難な状況であったため、現地専門家に調査項目を明示して調査を委託したうえで、Web 会議機能を用いて内容の確認および支援ニーズに関する議論を行い、その結果をもとに考察した。

ベトナムでは、労働安全衛生法が 2016 年に制定されており、労働安全衛生の確保は、国の基本政策をもとに推進が図られている。事業場には安全衛生担当者の選任を含む業種および従業員数に応じた労働安全衛生体制の確立が求められている。職業性疾患は、難聴や呼吸器疾患が多い。また、企業規模による格差やインフォーマルセクターの問題も存在する。現在のベトナムは、法令の整備に比べて、監督や事業場内の専門人材が不足している状態にある。日本が労働安全衛生法制定後に取り組みを充実してきた経験を共有するとともに、専門人材の養成ニーズの評価およびプログラム開発に対して、貢献の可能性があると考えられる。

ラオスでは、労働安全衛生の国家戦略が策定され、また労働法のもとで労働安全に関する政令が出されている。しかし、労働安全衛生上の課題把握が不十分で、独立した労働安全衛生法の制定に至っていない。また、監督官が大きく不足していること、労働安全衛生の専門家の育成の仕組みが未整備であることなど、様々な課題が存在する。カンントリープロフィールの充実や、課題の把握に応じて労働安全衛生法や関係法令の制定といった基盤整備における日本からの貢献の可能性が存在する。また、日本の専門教育機関に中長期の派遣を受入れて専門家育成を図り、それ基盤として教育研修プログラムの開発を支援するなど、人材育成分野において、大きな貢献の可能性があると考えられる。

研究分担者

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A. 研究の背景と目的

新興国には明確な定義はないが、一般的には「国際社会において政治、経済、軍事などの分野において急速な発展を遂げつつある国」である。このような国においては、経済の急速な発展によって、先進国が過去に経験したような安全衛生上の問題が発生するとともに、不均衡な発展のための様々な課題も存在することが多い。具体的には、疾病構造が変化すること、労働安全衛生対策への十分な投資が行われないこと、労働安全衛生を担う専門人材が不足することなどである。これらの課題は、日本において1972年の労働安全衛生法制定以来、取り組んできたことであり、多くのプログラム、人材、経験などの蓄積がある。このような蓄積を用いて、日本がアジア地域の新興国への労働安全衛生推進に係る支援を行うことは、地域の労働安全衛生の発展に貢献するとともに、域内での日本の地位向上にもつながる。しかし、そのような支援は各国のニーズに合ったものである必要があり、支援に当たってはニーズ把握が不可欠である。

そこで、アジアの新興国に対して、それぞれの国の産業構造、人口構造、制度や文化などに伴うニーズに合った労働安全衛生に係る支援を行うために、国ごとに存在する支援ニーズに関する調査を行い、安全衛生推進に係る支援の手法を検討する。

3年間の研究期間において、計6か国のアジアの新興国を対象とした調査を計画した。それぞれの国の産業構造、人口構造、制度などに伴うニーズに合った労働安全衛生に係る支援を行うためには、国ごとの労働安全衛生に関連した情報を幅広く収集する

必要がある。事前の文献調査を前提とするも、限られた現地調査期間で効率よく情報を収集するためには、まず、全体として収集したい情報を明確にしたうえで、訪問調査対象機関ごとに期待される収集情報を割り振り、事前に情報提供の依頼を行うことが有効と考えられる。そこで、全体で必要な情報のうち、機関ごとに収集を期待する情報項目を明らかにするためのチェックシートの開発し、それに基づき事前に文献および Web 調査を行い、現地での質問事項を明確にしたうえで訪問することとした。このうち、チェックシートについては、1年目の研究で「アジア新興国の労働安全衛生関連情報の収集チェックシート(アジア新興国情報チェックシート)」を作成している。

3年目に当たる今年度は、ベトナムおよびラオスを対象に調査を実施した。

B. 方法

両国の調査は、昨年までと同様、文献調査および現地調査を組み合わせる予定であった。

しかし、COVID-19のパンデミックによって現地訪問が困難な状況であったため、現地専門家に調査項目を明示して調査を委託したうえで、Web 会議機能を用いて内容の確認および支援ニーズに関する議論を行った。

C. 結果

1. ベトナムにおける安全衛生の取り組み促進の支援に係る実態及びニーズ調査

ベトナムの人口は約9600万人であり、毎年100万人ずつ増加している。また、人口の7割が35歳以下である。1人当たりのGDPは、3416US\$(2019年)で、経済発展の過程にある。主な産業は、食品加工、衣

料品、繊維などの工業であるが、依然として農業労働者が占める割合が多く総労働力の39.4%を占めている。近年、公衆衛生レベルの改善に伴い伝染性疾患から非伝染性疾患に疾病構造の変化が見られるが、依然として伝染性疾患の課題は小さくない。また、医療従事者の養成にも重点が置かれており、1年間に要請される医師の数は2006年から2017年の期間に3倍に増加しているが、人口1000人当たり0.8人と先進国に比べると十分とはいえない。また、予防医学医師の養成制度もある。

労働安全衛生が2016年に制定されており、安全衛生法制の充実が図られた。法規制においては、主に労働傷病兵社会省と保健省が担っている。事業場には、安全衛生担当者の選任を含む業種および従業員数に応じた労働安全衛生体制の確立が求められており、安全衛生担当者の研修制度も存在する。また、ハイリスクの職場には医師の選任要件も存在する。労働安全衛生の確保は、国の基本政策のもとに推進が図られている。現在は、2021-2030年の国家社会経済発展戦略の一部として推進されている。労働災害の報告数は増加傾向にあるが、労災補償制度が整い、報告頻度が増えたことが背景にあると考えられる。また職業性疾患は、難聴が全体の約60%を占め、その他は呼吸器疾患が多い。労働安全衛生管理の企業規模による格差は大きく、インフォーマルセクターの問題も存在する。

2. ラオスにおける安全衛生の取り組み促進の支援に係る実態及びニーズ調査

ラオスの人口は約730万人であり、近隣アジア諸国の中で人口密度が低く、また若年層が多いことが特徴である。近年、徐々に軽工業が増加しているが、依然と

して農業に従事する人口が過半を占めている。公的医療サービスも徐々に充実し、小児死亡率は大きく改善しているが、依然として5歳未満の子供の栄養不良など、多くの公衆衛生上の課題を抱えている。

労働安全衛生に関して、労働社会福祉省の主導のもと、他の省庁とも分担して推進されている。2005年に第1次5か年計画以降、労働安全衛生の国家戦略が策定され、また労働法のもとで労働安全に関する政令が出されている。しかし、独立した労働安全衛生法の制定に至っていないこと、監督官が大きく不足していること、労働安全衛生の専門家の育成の仕組みが未整備であることなどの様々な課題が存在する。また、職業病報告および統計制度が未整備であるため、労働安全衛生上の課題が十分に把握されていない。

D. 考察

本年度の調査結果に基づき、ベトナムおよびラオスにおける労働安全衛生に関する支援ニーズについて考察する。

1. ベトナムにおける支援ニーズ

現在のベトナムは、法令の整備に比べて、監督や事業場内の専門人材が不足している状態にある。日本が1972年の労働安全衛生法制定後に取り組みを充実してきた経験を共有するとともに、専門人材の養成ニーズの評価およびプログラム開発に対して、大きな貢献の可能性があると考えられる。

2. ラオスにおける支援ニーズ

Country profileの充実や、課題の把握に応じて労働安全衛生法や関係法令の制定といった基盤整備における日本からの貢献の可能性が存在すると考えられる。

また、労働安全衛生の専門家や事業場内の担当者育成システムの整備を目的として、日本の専門教育機関に中長期の派遣を受入れて専門家育成を図り、それ基盤として教育研修プログラムの開発を支援するなど、人材育成分野においては大きな貢献の可能性がある。

E. 結論

現地専門家への委託および議論を通して、ベトナムおよびラオス両国の労働安全衛生の実態および支援ニーズの調査を行った。それぞれの国で課題は異なるが、日本の経験の共有およびリーダー育成などの人材養成において、高い支援ニーズが存在すると考えられる。

F. 研究発表

- 該当なし

分担研究報告書

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研究代表者	森 晃爾
研究分担者	Odgerel Chimed-Ochir 石丸知宏

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研究代表者 森 晃爾

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研究要旨

日本のベトナムに対する労働安全衛生推進に係る支援にニーズを把握する、同国の労働安全衛生の実態とニーズを把握することを目的に調査をおこなった。調査は、同国における労働安全衛生の専門家である Dr. Nguyen Bich Diep (Senior Expert in Occupational & Environmental Health, National Institute of Occupational & Environmental Health)に委託し、提出された報告書をもとにインタビューを行うことで、実施した。

ベトナムの人口は約 9600 万人であり、毎年 100 万人ずつ増加している。また、人口の 7 割が 35 歳以下である。1 人当たりの GDP は、3416US\$ (2019 年) で、経済発展の過程にある。主な産業は、食品加工、衣料品、繊維などの工業であるが、依然として農業労働者が占める割合が多く総労働力の 39.4%を占めている。近年、公衆衛生レベルの改善に伴い伝染性疾患から非伝染性疾患に疾病構造の変化が見られるが、依然として伝染性疾患の課題は小さくない。また、医療従事者の養成にも重点が置かれており、1 年間に養成される医師の数は 2006 年から 2017 年の期間に 3 倍に増加しているが、人口 1000 人当たり 0.8 人と先進国に比べると十分とはいえない。また、予防医学医師の養成制度もある。

労働安全衛生が 2016 年に制定されており、安全衛生法制の充実が図られた。法規制においては、主に労働傷病兵社会省と保健省が担っている。事業場には、安全衛生担当者の選任を含む業種および従業員数に応じた労働安全衛生体制の確立が求められており、安全衛生担当者の研修制度も存在する。また、ハイリスクの職場には医師の選任要件も存在する。労働安全衛生の確保は、国の基本政策のもとに推進が図られている。現在は、2021-2030 年の国家社会経済発展戦略の一部として推進されている。労働災害の報告数は増加傾向にあるが、労災補償制度が整い、報告頻度が増えたことが背景にあると考えられる。また職業性疾患は、難聴が全体の約 60%を占め、その他は呼吸器疾患が多い。労働安全衛生管理の企業規模による格差は大きく、インフォーマルセクターの問題も存在する。

現在のベトナムは、法令の整備に比べて、監督や事業場内の専門人材が不足している状態になる。日本が 1972 年の労働安全衛生法制定後に取り組みを充実してきた経験を共有するとともに、専門人材の養成ニーズの評価およびプログラム開発に対して、大きな貢献の可能性がある。

研究協力者

末吉 尚純 (産業医科大学 産業保健経営学研究室)

五阿弥雅俊 (産業医科大学 産業保健経営学研究室)

A. 目的

ベトナムにおける労働安全衛生の現状とニーズを把握することを目的に、ベトナムの労働衛生関連の行政機関、法体系、労働衛生活動を担う専門人材、医療保険制度及び労災補償制度について調査を実施した。

B. 方法

当初は、文献調査を行って日本国内において入手可能な情報(現地の法令や行政機関、現地の医療制度や公衆衛生に関する情報の一部)を収集したうえで、現地を訪問して、事前調査で得られた情報の確認と、現地の労働安全衛生の実態把握を目的としたインタビュー調査を実施す予定であった。

しかし、COVID-19 のパンデミックによって現地訪問が困難な状況であったため、現地専門家に調査項目を明示して調査を委託したうえで、Web 会議機能を用いて内容の確認および支援ニーズに関する議論を行った。

1. 現地調査

調査項目は、国の情報、医療と公衆衛生、労働安全衛生の枠組み、労働安全衛生のレベル、分析と行動計画の5つの大項目に対して、全体で34中項目、74小項目からなるチェックリストを作成した。(添付1)

ベトナムにおける調査を実施するにあたって、現地のネットワークと専門知識を有する適任者を機縁法で選定した。(添付2)

調査期間は、2020年10月1日～12月10日とした。

2. Web 会議の開催

2021年1月18日に、研究代表者、研究分担者および研究協力者が全員参加し、Web 会議を開催した。予め質問事項を現地

専門家に送付したうえで、項目に沿って議論を行った(添付3)。

聴取した主な質問項目は、以下の通りである。

- ベトナムの OSH 制度に強みや弱み、ギャップ
- ベトナム政府の OSH 制度の改善に向けたアドバイスをするコンサルタントと仮定した場合のアドバイス
- 人材育成のニーズ
- これまで(過去10年間)に他国から受けた OSH の支援
- 希望する日本からの技術支援の内容
- その他、報告書の個別内容

C. 結果

委託した調査報告書(英文)については、別添する。調査結果の概要は、以下の通りである。

1. 国の情報

1) 歴史

ベトナムの歴史は4000年前までさかのぼる。先史時代のベトナムでは世界で最初の農業を実践した。中国、日本、フランス等の支配を受けつつ、ベトナムは20世紀半ばに長期にわたる戦争を経験し、1954年から1975年にかけて軍事的にも政治的にもベトナム民主共和国(北ベトナム)とベトナム共和国(南ベトナム)に分割された後、1975年4月の再統一後、1976年7月にベトナム社会主義共和国が設立された。

ベトナムは54の民族からなる多国籍国家である。ベト(キン)族が人口の87%を占め、その他53の少数民族は総勢800万人以上。15の明確な宗教伝統に所属する38の宗教団体と1つのダルマ修行(精神的な修行のセット)がある。(米国国務省「国際的な宗教の自由に関する報告書-ベトナム」(USSD-IRF 2016年報告書))

2) 人口構成

ベトナムの現在の人口は、最新の国連データによる予測によると 97,569,565 人（1986年の約6,000万人から増加）で、2050年には1億2,000万人に拡大すると予測している。人口ランクは世界第15位で、ベトナムの人口は毎年約1%ずつ増加しており、毎年約100万人ずつ増加している。人口密度は293.89人/km²であり、世界で46番目に人口密度の高い国となる。現在、人口の7割が35歳以下で、平均寿命は76歳（男性71.7歳、女性79.9歳）と、同程度の所得水準ではこの地域の国の中で最も高い。しかし、人口の高齢化は急速に進んでいる。また、現在13%を占めるベトナムの新興中産階級は、2026年には26%に達すると予測されている。

2006年から2018年までのベトナムの15歳から35歳までの成人の総識字率において、2018年の識字率は約94.8%であった。

3) 政治と政策

ベトナム社会主義共和国は、法治国家である。ベトナム民主共和国の誕生と同時に政治体制が確立され、以下の4つの組織で構成されている。ベトナム共産党、ベトナム社会主義共和国、ベトナム祖国戦線、その他の政治組織からなる。ベトナムは、2011年から2020年までの10カ年の社会経済発展戦略と2016年から2020年までの5カ年の社会経済発展計画の実施において、ポジティブな成果を上げてきた。2021年は、10年経済発展戦略（2021年～2030年）と5年社会経済発展計画（2021年～2025年）を実施する最初の年となる。

4) 法体系

現行憲法は2013年の第13回国会で採択

された。2013年の憲法は、経済・政治改革、社会主義目標、社会主義民主主義、市民の自由権に関するベトナム共産党の基本的な視点を制度化した最高法規の基本的な法律文書である。憲法は、すべての国民（男女を問わず）に、すべての政治、経済、文化、社会の分野および家庭の問題において平等な権利を与えている。憲法は11章と120条からなる。

5) 産業と経済

ベトナムの主な産業は、食品加工、衣料品、繊維、靴、機械製造、鉱業、石炭、鉄鋼、セメント、化学肥料、ガラス、タイヤ、石油、携帯電話などである。

農業はGDPの14.7%を占め、総労働力の39.4%を雇用している。第2次産業はGDPの34.2%を占め、総労働力の25.8%を雇用している。サービス業はGDPの45.5%を占め、総労働力の34.7%を雇用している。

6) 労使関係、請負業者、非正規部門労働者、移住者

ベトナムでは、労使関係の管理は、従業員の賃金や方針の管理だけでなく、政府のコンプライアンス手続きの管理も含まれている。

7) 公安・災害・公安

窃盗、財布のひったくり、スリは最も一般的な犯罪であり、ホテル、観光地、空港、公園、その他外国人に人気のある混雑した場所で最も頻繁に発生している。

東南アジアの熱帯モンスーン地帯に位置するベトナムは、世界でも有数の災害国である。2016年、エルニーニョに起因する干ばつと塩分侵入の緊急事態は、水と食料の不足と人道支援の欠如により、5万2千人の

子どもと 100 万人の女性を含む 200 万人の人々の生活に悪影響を与えた。

8) 日本との関係

ベトナムと日本は 1973 年 9 月 21 日に国交を結び、2009 年には戦略的パートナーシップ、2014 年にはアジアの平和と繁栄のための広範な戦略的パートナーシップに格上げされた。日本はベトナムの第 2 位の外国投資家、第 4 位の貿易相手国、第 3 位の観光相手国となっている。

2. 医療と公衆衛生

1) 公衆衛生、疾病、死因の状況

ベトナムでは非伝染性疾患が顕著になってきているが、伝染性疾患は依然として問題となっている。ベトナムでは、現在、伝染病の主要な課題は以下の通りである。

- 新興感染症：手足口病、鳥インフルエンザ、MERS-CoV 感染症、エボラウイルス、ジカウイルス、コロナウイルス等
- 再発した病気：デング熱、麻疹、風疹等
- その他の感染症・感染症：肝炎、HIV/AIDS、脳炎、重篤な感染症・感染症、肺炎、マラリア等
- 病院での感染症や抗生物質耐性

2009 年から 2019 年までのベトナムの乳幼児死亡率では、2019 年のベトナムの乳幼児死亡率は、生後 1,000 人当たり約 15.9 人であった。ベトナムの 5 歳未満児死亡率の割合は、2019 年には 1,000 人の生後出生あたり 19.9 人であった。

2) 医師と医療従事者のためのトレーニングと供給

ベトナムの医療訓練では、2 つの訓練システムが認められている。(i)教育訓練省(MOET)と労働・インバイド・社会省が管

理する研究ベースのシステム(高等教育・職業訓練を含む)と、(ii)保健省が管理する医療実践ベースのシステムである。政府は、教育機関の種類や訓練レベルに応じて、各省庁や地方自治体に教育活動の管理を委託している。

ベトナムでは、過去 20 年間で保健医療訓練機関の数と卒業生の数が急速に拡大している。大学での研修医の数は 1997 年以降、9 人から現在の合計 17 人へとほぼ倍増。年間に卒業する新しい医師の数は、2006 年の 3265 人から 2017 年には 9118 人に増加しており、10 年間でほぼ 3 倍に増加。2016 年のベトナムの人口 1000 人当たりの医師数は 0.8 人、人口 1000 人当たりの看護師数は 1.4 人、人口 10000 人当たりの薬剤師数は 0.3 人と推定される。

現在、ベトナムの公共システムには 40 万人以上の医療従事者がいる。医療従事者は主に医師、助医、看護師、助産師、医療技術者、伝統医学者で構成されている。これらの職業は、全医療従事者の 83.55%を占めている(MOH, 2012)。その他の職種には、薬剤師、エンジニア、会計士、技術者などが含まれる。医師、助医、看護師、医療技術者は、医療従事者の 80%を占めている。これらの幹部は、検査・治療法(LET)(2011年)の規定に基づいて業務を行うために免許が必要である。ベトナムの医師密度は人口 1 万人当たり 7.61 人である(2013年)。看護師と医師の比率は 2008 年の 1.19 から 2012 年には 1.34 に増加している。

3) 医療の現状と質

ベトナムの医療制度は、中央レベル、省レベル、地区レベル、コミュニケーションレベルの 4 つの行政レベルで構成されている。公衆衛生セクターは中央レベルから草の根レベルまで幅広くカ

バーされている。2014年、保健省と内務省は、無駄のない人員配置、有効性、協調性、継続性に向けたサービス提供組織システムの再配置に関する規則を発行した。地方予防医療ネットワークは、合同通達第 51/2014/TTLT-BYTBVN 号および通達第 59/2015/TT-BYT 号に規定されているように、同様の機能を持つセンターを統合したり、入院病床を持つセンターを地方病院に統合したりすることで、CDC モデルに再編成されている。

保健省は 2010 年に医療サービス管理局に病院品質管理室を設置し、2013 年には「病院における医療サービス品質管理の確立に関するガイドライン」を発行した。この通達によると、すべての病院は、品質管理委員会、品質管理オフィス/ユニット、品質管理ネットワークを含む品質管理システムを構築しなければならないとされている。各省の保健局は、その省内にある病院の品質管理を担当している。また、医療サービスの質の認定に責任を持つ独立機関もまだ存在しない。なぜなら、検査・治療法および政令第 87/2011/ND-CP に基づく質認証のための独立機関がまだ設立されていないからである。

4) 国際保健機関の状況

ベトナムは 1977 年 9 月 20 日に国連に加盟した。One Strategic Plan 2017-2021 は、SDGs の実施に焦点を当てた第 3 世代の国連開発援助枠組 (UNDAF) であり、ベトナムで国連支援を実施するためのプログラムと運営の枠組みを代表するものである。

ベトナムは 1950 年 5 月 17 日から WHO の加盟国となった。WHO は 1977 年にハノイにカンントリーオフィスを、2003 年にはホーチミン市にサブオフィスを設立した。包括的な枠組みを提供するのは、2015 年 9 月に国連総会で採択された「持続可能な開発

のための 2030 アジェンダ」である。

米国疾病対策予防センター (CDC) は、効果的で持続可能な公衆衛生システムを構築するために、1998 年にベトナム政府および現地の組織と協力して活動を開始した。

USAID は、国際安全保障に貢献し、自由、公正、互恵的な貿易を行い、人権と法の支配を尊重する、豊かで自立した独立した国になるようにベトナムと協力している。ベトナムにおける USAID のプログラムは、経済ガバナンスの強化、質の高い高等教育へのアクセスの拡大、HIV/AIDS の感染制御と世界的な保健安全保障の脅威への対応、障害者の福祉の向上、生物多様性の保全やダイオキシン汚染を含む環境問題への対応など、最も必要とされるところに戦略的に資源を集中させることで、継続的な開発を強化している。

地元の NGO と国際 NGO がある。国際 NGO には以下がある。

- COMINGO : 首相を支援し、外国の NGO の活動に関連する法律や政策の実施のための指導、監視、監督を行うハイレベル機関。
- PACCOM: ベトナムにおける国際 NGO の登録と活動の事務的・法的側面を促進し、国際 NGO との関係において現地の組織を支援。
- VUFO : 全国的な社会政治組織であり、その主な機能は、ベトナムと他国との間で友好的で協力的な人と人との関係を確立し、促進することである。平和・連帯・友好団体、人道 NGO、企業、他国の個人などからの物的援助を動員し、募る役割がある。vufo のウェブサイトによると、ベトナムには 153 の市民社会組織があり、現在活動している NGO はベトナムに駐在員事務所を持っており、

そのうち健康関連の活動をしている組織は 78 ある。

3. 職業上の安全と健康の枠組み

1) OSH 法規制

労使関係に関する主な OSH 法規制について、以下のものがある。

- 労働法典 (1994 年) : 17 章と 198 の規定で構成。すべての人に、性別、社会階級、信条、宗教に基づく差別なく、希望する職業に就き、技能を向上させる権利を付与。
- 労働法 2012 (10/2012/QH13) : 1994 年 6 月 23 日付けの労働法に代わる法。同法は 17 章 242 条、第 IX 章、20 条を含む労働安全衛生法で構成。
- 労働法典 2019 (第 45 号/2019/QH14)。この労働法典は、既存の労働法典第 10/2012/QH13 号 (2012 年労働法典) に代わり、2021 年 1 月 1 日から施行。労働法 2019 年版は、17 の章と 220 の条文で構成。労働法 2019 年版の主な変更点としては、労働法の適用範囲の拡大、労働契約の更新と終了におけるより柔軟性の提供、初めて従業員が独立した労働組合を設立し加入する権利の設定、従業員 10 人未満の雇用者が社内の就業規則を発行するための要件の設定、時間外労働時間の上限の引き上げ、従業員の定年の引き上げなどがある。
- 労働安全衛生法 (法律第 84/2015/QH13 号)。この法律は、労働安全衛生 (OSH) を保証する措置、労働災害・疾病の被害者に対する政策と補償、OSH に関する組織と個人の責任と権利、OSH に関する国家管理について規定している。この法律は、次のとおり 7 章からなる。
第一章 総則

第二章 労働者に対する危険因子及び有害因子の防止及び管理のための措置

第三章 労働安全衛生上の障害及び労働災害・疾病を原因とする技術的な事故の解決のための措置

第四章 特殊労働者の労働安全衛生の保証

第五章 生産・事業所における労働安全衛生の保証

第六章 労働安全衛生の国家管理

第七章 実施規定

また、安全、健康、環境に関するその他の関連法令として、以下のものがある。

- 2013 年に制定されたベトナム憲法
- 国民の健康の保護に関する法律
- 社会保険法
- 健康保険法
- 感染症の予防に関する法律
- 環境保護法
- 化学法
- 火災予防及び消防に関する法律
- 基準と技術規則に関する法律

また、ベトナムは 25 の ILO 条約を批准している。

- 基本条約 8 件中 7 件
- ガバナンス条約 (優先順位) : 4 件中 3 件
- 技術的な条約 : 178 件中 15 件

2) 法規制に関わる機関と役割

OSH 法規制の制定に関わる省庁は、以下のとおりである。

- 労働傷病兵社会省 (MOLISA)
- 保健省 (MOH)
- 科学技術省
- 農業農村開発省
- 運輸省
- 工業貿易省
- 建設省

- 情報通信省
- 防衛省
- 公安省

また、検査体制を含むコンプライアンスを確保するための仕組みとして、以下が挙げられる。

- 労働安全衛生検査所 (OSH 法第 89 条で次のように規定)
 - 労働安全衛生検査官は、中央・省レベルの労働国家管理機関の専門検査官である。
 - 放射線、石油・ガス探査・開発、鉄道、水路、陸上・航空輸送、人民軍の分野における労働安全衛生検査は、労働安全衛生検査官と連携して、当該分野の国家管理機関が実施する。
- 労働・戦犯・社会問題の検査機能を行う機関 (労働・戦犯・社会問題の検査所の組織と運営に関する 2017 年 10 月 4 日付政府令第 110/2017/ND-CP 号の第 3 条)
- 労働と OSH に関する専門的な検査の内容 (2017 年 10 月 4 日付けの Gov Decree No.110/2017/ND-CP の第 15 条で、労働、戦争無効、社会問題における検査所の組織と運営について規定)
- OSH 検査命令と手順 (政府令第 07/2012/ND-CP の第 18、19、20、21 条)
- 検査報告体制 (労働・戦争無効・社会問題における検査院の組織と運営に関する 2017 年 10 月 4 日付政府令第 110/2017/ND-CP 第 25 条)。
- OSH の検査とチェックの調整 (政府令第 39/2016/ND-CP 第 43 条に規定)

MOLISA 検査院の統計によると、2014 年には全国に 465 人の労働検査官がおり、労働政策、OSH 規制、功労者、社会保険、若年労働者、労働政策体制の実施に関する苦

情の解決、糾弾などの検査機能を担っている。国の労働・OSH 政策の検査に従事する役員数は、上記の労働検査官の数の 3 分の 1 以上にしか達していなかった。2011 年から 2015 年の間、毎年、OSH 検査官が実施したのは約 5,600 社/52 万 5,000 社の企業のみで、ストライキ、労働災害のリスクが高い大企業にのみ焦点を当てていた。多くの労働災害は、企業から迅速に報告されなかった (出典:2011 年~2015 年の全国の OSH プロファイル、MOLISA 2016)

3) OSH に関する報告・届出

OSH に関する事業場の報告・届出制度として、以下がある。

- OSH 法第 34 条に規定されている労働安全衛生を脅かす労働災害や技術事故の通知と政令第 39/2016/ND-CP、第三章：労働災害、技術事故の通知、調査、報告、重大な OSH 障害の原因となっている労働災害や技術事故の報告。
- 労災報告の時期と様式 (政令第 39 号/2016/ND-CP 第 24 条)
- 労災被害者が診察・治療施設で診察・治療を受けた場合の報告と情報提供 (政令第 39 号/2016/ND-CP 第 25 条)
- OSH 障害を引き起こす技術的な事故および重大な OSH 障害を引き起こす技術的な事故の報告、調査および報告 (政府令第 39/2016/ND-CP 号第 26 条に規定)
- 事業場における従業員の健康・職業性疾患に関する報告・届出制度に関する労働衛生管理と従業員の健康管理の手引き (報告規則を含む) についての通達 (Circular No.19/2016/TT-BYT)

4) 労災と疾病をカバーする労働者災害補償保険と社会保障制度

労災保険と社会保障制度に関して、OSH 法第 3 章：労災・疾病保険制度、2016 年 5 月 15 日付政府令第 37/2016/ND-CP 号、強制労災・疾病保険に関する OSH 法の多くの条文を詳述しており、Circular No.26/2017/TT-BLDTBXH (2017/9/20 付) で規定されている。強制労働災害・職業性疾患保険の実施を規制し、その実施を指導する。主な内容は、以下のとおりである。

補償制度：

- 労災・職業性疾患に罹患した従業員が初めて作業能力低下の診断を受けた場合の助成金 (第 5 条)
- 傷病が再発して労働能力の低下が再評価された場合の労災・業務上疾病給付金の精算 (第 6 条)
- 一時金または月額給付を受けていた従業員が、労働災害、新たな職業性疾患、事故による HIV/エイズ感染などに罹患した場合の労災・職業性疾患手当制度の精算 (第 7 条)
- 職業性疾患の危険性のある職業又は業務に就いていない従業員が退職した場合又は退職した場合の職業性疾患体制の整備に関する命令書及び書類 (第 10 条)

労災の認定基準について、OSH 法 (2015 年) による労働災害とは、作業中に発生した身体の一部または機能に傷害を与え、または従業員を死亡させる事故であって、与えられた業務またはタスクの遂行に密接に関連しているものをいう。

労働災害 (OA) の分類：次のような場合に死亡をもたらす業務上の傷害

- 事故が起きた職場で
- 途中または緊急時に
- 治療中または法医学的検査記録に記載された傷の再発によるもの
- 裁判所の結論による宣言

重篤な労働災害について、Gov Decree No.39/2016/ND-CP の付録 II に規定されている。

一方、OSH 法 (2015 年) による職業性疾患の定義：従業員の高い労働条件によって引き起こされる病気とされ、2016 年 5 月 15 日付 MOH による Circular 15/2016/TT-BYT で、社会保険の対象となる補償対象の職業性疾患のリストを示し、職業性疾患の診断と評価に関するガイダンスを提供している。ベトナムで補償されている職業性疾患は、以下の 34 種類である。

グループ I：職業性じん肺と気管支疾患

- (1) 珪肺症
- (2) アスベスト症
- (3) ビシニョーシス
- (4) 職業性慢性気管支炎
- (5) 喘息
- (6) タルコシス
- (7) 石炭肺疾患

グループ II：業務上の中毒

- (8) 鉛中毒
- (9) ベンゼン中毒
- (10) 水銀中毒
- (11) マンガン中毒
- (12) TNT (トリニトロトルエン) 中毒
- (13) ヒ素とヒ素化合物中毒
- (14) 農薬中毒
- (15) ニコチン中毒
- (16) 一酸化炭素中毒
- (17) カドミウム中毒

グループ III：身体的要因による職業性疾患

- (18) 騒音による難聴
- (19) 圧縮または減圧された空気によって引き起こされる疾患
- (20) 全身の振動によって引き起こされる病気
- (21) 局所的な振動による疾患

- (22) 電離放射線による疾患
- (23) 職業性白内障
- グループ IV：職業性皮膚疾患
- (24) 職業性油性ニキビの病気
- (25) 職業性メラノーシス
- (26) クロムによる刺激性接触皮膚炎
- (27) 湿った環境や寒い環境に長時間さらされることで起こる皮膚病
- (28) 天然ゴム、化学添加物ゴムへの暴露による職業性皮膚疾患
- グループ V：職業性感染症
- (29) レプトスピラ症
- (30) B型肝炎ウイルス
- (31) 結核
- (32) C型肝炎ウイルス
- (33) 労災による HIV 感染
- グループ VI：職業性がん
- (34) 中皮腫

5) OSH 管理のための職場内組織等の規程

OSH 法によって、労働安全衛生単位 (OSH 法第 72 条による)、健康単位 (OSH 法第 73 条による)、労働安全衛生労働者 (OSH 法第 74 条による) が規定されている。また、事業所の労働安全衛生委員会 (OSH 法第 7 条による) が規定されている。

また、OSH 法第 14 条で、労働安全衛生に関する教育が規定されている。

6) OSH に従事する者の資格要件

① 事業場での体制

安全衛生責任者、安全技術者、産業医、衛生士など、OSH の分野に従事する者の法的資格要件として、以下のものがある。

- 常勤の労働安全担当者は、以下のいずれかの条件を満たしていなければならない。
 - a) 技術分野の大学の学位を持ち、事業所

の業務及び生産の分野で少なくとも 1 年の実務経験を有すること。

b) 技術分野の大学の学位を有し、事業所の業務及び生産の分野で少なくとも 3 年の実務経験を有すること。

c) 技術的な専門分野の中級資格を持っているか、直接技術的な仕事をしている; 設立の生産と事業所のビジネスの分野で働いた経験の 5 年を持っていること。

- 非常勤労働安全管理者は、次のいずれかの条件を満たしていなければならない。
 - a) 技術分野の大学の学位を持っている。
 - b) 技術分野の大学の学位を有し、事業所の業務及び生産の分野で少なくとも 01 年の実務経験を有すること。
 - c) 技術専門分野の中級資格を持っているか、または直接技術的な仕事をしていること。
- 企業・生産・事業所で医療・保健活動を行う者は、以下の条件を十分に満たしていなければならない。
 - a) 総合医・開業医、予防医学医、看護学士、医師・医師助手、助産師中級看護師などの医療資格を持っていること。
 - b) 専門職業衛生の証明書を持っていること (詳細は、項目 3.8.12 の職業衛生に関する証明書訓練プログラムを参照)。
- 雇用主は、健康スタッフの情報を、事業所の本社がある州の保健局に通知しなければならない。
- 事業所が保健スタッフを配置できない場合、または医療部門を設置できない場合、事業所は以下の規定を遵守しなければならない。
 - a) 資格のある医療機関との契約を締結し、医療スタッフの最低必要数に規定された十分な数の医療スタッフを提供し、緊急事態が発生した場合には、平地、町、

市の場合は 30 分以内、山間部、僻地、孤立した地域の場合は 60 分以内に速やかに事業所に立ち会うこと。

b) 上記の医療施設の情報を、本社のある州の保健省に通知すること。

② 職業性疾患の診断を行う医師

職業性疾患の診断を行う医師は、次の条件を十分に満たしていなければならない。

a) 総合医・開業医、専門医などの医療資格を有していること。

b) 職業性疾患証明書を持っていること。

職業性疾患証明書を作成するための研修プログラムの研修期間は 3 ヶ月間と 9 か月間のものがあるが、2020 年から 9 ヶ月間のコーストレーニングは実施されない。

職業性疾患診断の研修内容は、以下のとおりである。

a) 職業性疾患の概要

b) 呼吸器疾患の基本的な概要、基本的な耳・鼻・喉の疾患

c) 基礎皮膚疾患の概要

d) 基礎的な循環器疾患の概要

e) 職業性呼吸器疾患群、基本的な診断技術と予防対策

f) じん肺の読影技術は、国際労働機関の分類ガイドラインによる。

g) 職業性身体的要因による疾患群、基本的な診断技術と予防策

h) 職業性感染症のグループ、基本的な診断技術と予防策

i) 職業性皮膚疾患のグループ、基本的な診断技術と予防策

j) 生物学的製剤による職業性疾患群、基本的な診断技術と予防策

k) 労働環境における職業性疾病の効果的な予防に関するデータの集計、報告、助言の提案

l) 職業性疾患検診施設での臨床実習と検査実習

研修は、国立労働環境衛生研究所、ハノイ医科大学予防医学研修公衆衛生研究所等で行われている。

③ 作業環境のモニタリングを行う作業衛生士の要件

政府令第 44/2016/ND-CP 号、第 33 条では、労働環境のモニタリングを運営する組織の条件として、人材の要件を含め、労働環境モニタリングを行う組織の条件を規定している。作業環境モニタリング運営組織は、以下の条件を満たさなければならない。

(1) 作業環境モニタリングサービスを提供する非事業単位または企業

(2) 作業環境モニタリングを実施するのに十分な人材を有していること

a) 作業環境モニタリングの直接責任者は、次の資格を有していること

- 健康、環境、生化学の分野で学士号以上の学位を取得していること

- 作業環境モニタリングの分野で 2 年以上の経験を有するか、予防医学の分野で 5 年以上の経験を有すること

- 作業環境モニタリングの訓練証明書を持っていること

b) 次の資格を持っている期間 12 ヶ月以上の契約又は無期限の契約で働いている人が 5 人以上いること

- 健康、環境、生化学の分野で中級以上の資格を有し、60%以上の人が大卒以上の資格を持っていること

- 作業環境モニタリングの訓練証明書を持っていること

作業環境の評価にする講習は、最低 1 ヶ月であり、以下の内容となっている。

- 内容：

- a) 労働安全衛生に関する一般的な紹介
- b) 作業環境モニタリング計画を作成する
- c) 作業環境における物理的要因の測定・評価方法
- d) 作業環境における粉塵成分の測定・評価方法。
- e) 作業環境中の化学的要因の測定・評価方法
- f) 職場における心理生理学的・人間工学的要因の測定・評価方法
- g) 微生物学的因子、アレルゲン、発がん性因子などの職業曝露の評価、...
- h) 労働環境を観察するための労働基準監督署でのフィールドワークと実習
- i) 作業環境における有害要因の効果的な防止に関するデータを総合し、報告・提言を行う。

トレーニング機関を行う機関は、国立職業環境衛生研究所 (NIOEH)、ホーチミン市公衆衛生研究所、パストゥール研究所などの OH の管理下にある資格のある機関である。

7) OSH スタッフ選任の最低基準

労働安全衛生法第 72 条第 1 項の労働安全部門の組織は、次のように定められています。

- 鋳業、コークス炭の生産、石油精製製品の生産、化学製品の生産、金属の生産及び金属製品、非金属鋳物製品の製造、建設工事の建設、船舶の建造及び修理、電気の生産、送電及び配電の分野で操業する生産及び事業所については、使用者は、以下の最低要件を満たす労働安全ユニット／部門を組織しなければならない。
(第 1 号)
- a) 50 人未満を雇用する事業所や生産施設は、労働安全の仕事を実行するために

少なくとも 1 人のパートタイム OSH 役員を手配しなければなりません。

b) 従業員を 50 人以上 300 人未満の事業所及び生産事業所は、少なくとも 1 人の常勤の労働安全衛生担当者を配置し、労働安全のための作業を行わなければならない。

c) 従業員を 300 人以上 1,000 人未満の事業所は、少なくとも 2 名の労働安全衛生担当者を配置して、労働安全衛生の業務を行わなければならない。

d) 従業員を 1,000 人以上雇用する事業所及び生産事業所は、労働安全部門を設置するか、少なくとも 3 人の専任の労働安全衛生責任者を配置して労働安全の業務を行わなければならない。

- 第 1 号以外の分野及び事業を営む製造業及び事業所については、事業主は、次の最低要件を満たす労働安全対策本部を設置しなければならない。

a) 使用者が 300 人未満の事業所は、労働安全の業務を行うために、1 人以上の非常勤の OSH 担当者を配置しなければならない。

b) 300 人以上 1,000 人未満の従業員を雇用する事業所及び生産事業所は、少なくとも 1 人の常勤の労働安全衛生責任者を配置して労働安全の作業を行わなければならない。

c) 従業員を 1,000 人以上使用する事業所及び生産事業所は、労働安全部門を設置するか、または 2 人以上の専任の労働安全衛生責任者を配置して労働安全を実施しなければならない。

労働安全衛生法第 73 条第 1 項に規定する医療部門の組織は、次のように規定されています。

- 水産品及び水産物の加工及び保存、鋳業、

繊維製品の製造、衣服、皮革、靴、コーキスの製造、化学品の製造、ゴム及びプラスチック製品の製造、スクラップのリサイクル、衛生、金属の製造、船舶の建造及び修理、建築材料の製造、使用者の分野及び産業の生産及び事業所の場合使用者は、次の最低要件を確保するために、事業所に医療部門を組織しなければならない。(第1号)

a) 300人未満の雇用者を有する事業所及び生産事業所は、保健医療活動を行うための中級資格を有する保健スタッフを1名以上配置しなければならない。

b) 300人以上500人未満の事業所は、健康管理活動を実施するために、少なくとも1人の医師・医師と1人の中級資格を持つ保健スタッフを配置しなければならない。

c) 500人以上1,000人未満の従業員を雇用する事業所及び生産事業所は、医師1人以上を配置し、シフトごとに健康管理活動を行うための中級資格を有する保健師1人を配置しなければならない。

d) 従業員を1,000人以上雇用する製造・事業所は、健康診断・治療に関する法律に基づき、組織的な形で保健所・施設を設置しなければならない。

- 第1号以外の分野・事業を営む製造・事業所については、事業主は施設内に医療部門を設置しなければならない。医療単位・部門は、以下の最低要件を確保する。

a) 500人未満の従業員を雇用する事業所及び生産事業所は、保健医療活動を行うための中級レベルの保健スタッフを少なくとも1人以上配置しなければならない。

b) 500人以上1,000人未満の従業員を雇用する事業所及び生産事業所は、少なくとも1人の医師と、健康管理活動を行う

ための中級レベルの保健スタッフを配置しなければならない。

c) 従業員を1,000人以上雇用する生産事業所と事業所は、その他の健康管理活動を行うために1人の医師と1人の保健スタッフを配置しなければならない。

8) OSH 管理のための職場活動の法的要件

① 危険・有害要因のリスクアセスメント関係

職場における危険因子・有害因子の管理に関する主な事項は、以下の通りである。

- OSH 法第18条で、事業場における危険因子・危険因子の管理について規定
- 2016年5月15日付政府令第39号/2016年5月15日付ND-CPでは、職場における危険有害要因の管理の基本的な内容を規定

- 職場における危険有害要因の管理の内容(第4条)。

- 危険有害要因の特定と評価(第5条)。

- 危険有害要因の防止及び管理のための目的及び措置の決定(第6条)

- 危険有害要因の防止及び管理のための対策の展開とその有効性の評価(第7条)

職場の衛生・衛生設備に関する法的要件としては、保健省の通達 Circular No.19/2016/TT-BYTによって、労働衛生、衛生・衛生設備の管理に関するガイドライン(労働者数/休憩室/浴室/手を洗うための水道水など)が出されている。

② 健康診断の法的要件

雇用前健康診断の法的要件として、使用者は、新入社員を健康に適した職場に配置し、職業性疾患を後から発見し、各社員の健康プロファイルを作成するために、業務に就く前に新入社員の健康診断を実施しなければならないとされている。健康診断の内容は、2013年5月6日付けの保健省の通

達 Circular No.14/2013 / TT-BYT で規定されている。健康診断の結果、健康の分類は、1997年8月5日付けの保健省の決定 No.1613/QD-BYT に従っている。一般的な従業員の健康プロファイルの策定は、2013年5月6日付けの通達 Circular No.14/2013/TT-BYT に従い、職業性疾患のリスクがある従業員の健康プロファイルの策定は、2016年6月30日付けの通達 Circular No.28/2016/TT-BYT に従って行われる。

危険性が高い職業・業務を行う労働者、障害のある労働者、未成年の労働者、高齢者の労働者は、少なくとも半年に一度は健康診断を受けなければならないとされている。また、健康診断を受ける際には、女性従業員には産科検診を実施し、職業性疾患の原因となる要因がある環境で働く人には、職業性疾患の発見のための健康診断を実施する。健康診断の内容は、2013年5月6日付けの保健省通達 Circular No.14/2013/TT-BYT で規定されている。健康診断の結果、健康の分類は、1997年8月5日付けの保健省の決定 No.1613/QD-BYT に従っている。一般的な従業員の健康プロファイルの策定は、2013年5月6日付けの通達 Circular No.14/2013/TT-BYT に従い、職業性疾患のリスクがある従業員の健康プロファイルの策定は、2016年6月30日付けの通達 Circular No.28/2016/TT-BYT に従う。この健康診断は、事業主が費用を負担する。

雇用主は、従業員に仕事を割り当てる前に、また、より重い、より危険な、より危険な職業や仕事に移す前に、または業務上の事故・傷害・疾病の治療を受けた後に職場に復帰する際に、健康診断を実施しなければならない(ただし、労働能力の低下を評価す

るために医師会の健康診断を受けた場合は除く)。この健康診断の内容と健康プロファイルの作成は、2016年6月30日付けの通達第 28/2016/TT-BYT 号「保健省による職業性疾患の管理に関するガイドライン」(附属書 II) に従っている。準臨床検査(検査、診断画像等を含む)は、事業場の従業員が曝露するものに適したものである必要がある。また、健康診断の結果、健康の分類は、1997年8月5日付けの保健省の決定 No.1613/QD-BYT に従っている。この健康診断は、事業主が費用を負担する。

労働安全衛生を著しく害する労働災害や技術的な事故の統計・報告、管理は、OSH 法(2015)第36条、37条に規定されている。

③ 職業性疾患の診断

事業主は、専門的技術的要件と条件を満たす保健所で職業性疾患を発見するための健康診断を従業員に提供しなければならない。事業主は、職業性疾患と診断された従業員を専門的・技術的条件を満たす保健所に派遣し、治療指針に基づいて治療を受けさせなければならない。職業性疾患の診断には、労働者側の情報と業務に関する情報が必要である。職業性疾患の診断に必要な検査内容の決定については、労働省の通達 28/2016/TT-BYT の附属書 4 を参考とする。一部の職業性疾患の検査内容の例：

- Silicosis シリカ粉塵 呼吸器・心血管系-肺 X 線;呼吸機能、必要に応じて CT スキャン、喀痰から AFB を検出。
- Asbestosis アスベスト粉塵 呼吸器系及び循環器系-肺 X 線検査、呼吸器機能、必要に応じて、CT 検査、喀痰から FB を検出。

既に職業性疾患に罹患している従業員は、定期的に職業性疾患を受けなければならない

い。受診間隔と検査内容は、34 の補償された職業性疾患の受診間隔と検査内容を定めた保健省の通達 No.28/2016/TT-BYT の付属書 6 に従う。一部の職業性疾患の定期 OD 検査の受診間隔の例：

- Silicosis : 12 ヶ月
- Asbestosis : 12 ヶ月
- Chronic Bronchitis : 6 ヶ月

④ 職場での技術的事故の処理及び応急処置に関する法的要件

OSH 法 (2015 年) では、労働安全衛生を著しく脅かす技術的な事故の処理と緊急救助の提供について規定している。また、政府令第 39/2016/ND-CP 39/2016/ND-CP 第 8 条では、重大な OSH 問題を引き起こした技術事故の処理と緊急対応のための措置を規定している。2016 年 6 月 30 日付 MOH 通達 Circular No.19/2016/TT-BYT では、労働者の健康管理に関するガイドラインでは、企業における救急・救急スタッフの数に関するガイドラインが示されている。

⑤ 業務上の負傷や病気の治療後の療養と健康リハビリテーションのための法的要件

業務上の事故による負傷又は業務上の疾病による疾病の治療を終えた後、復職後 30 日以内に健康が回復していない従業員は、業務上の事故又は疾病にかかるたびに 5 日から 10 日の間、療養及び健康リハビリテーションを受けることができる。

⑥ 危険因子や危険因子を伴う業務を行う従業員に適切な個人用保護具を提供するための法的要件

職場に労働安全衛生設備を備えることとなっている。作業中に危険因子及び危険因子に曝される従業員は、使用者から適切な

個人用保護具を支給され、作業中に使用しなければならない。

⑦ 職場での OSH に関する教育・研修の法的要件

政府令第 44/2016/ND-CP 号および政府令第 140/2018/ND-CP 号によって、以下のように定められている。

OSH 研修の対象者は、以下の 6 つのグループに分けられ、それぞれの規定された OSH に関する研修を受けなければならない。

- グループ 1：ユニット、生産・事業所、関連部門、支店の長、生産、販売、技術を担当する者、作業場長またはそれに相当する者、本条に規定されている長の副長は、OSH の業務を担当する。
- グループ 2. OSH の業務を行う者には、以下の者が含まれる。事業所の常勤及び非常勤の OSH 担当者；事業場の OSH を直接監督する者。
- グループ 3：OSH 厳守業務を行う者とは、労働・無効者・社会保障省が定めた OSH 厳守業務リストに記載された業務を行う者をいいます。
- グループ 4：本条に定める第 1、3、5、6 群に属さない従業員で、事業主のために働く見習い、実習生、試用生を含む。
- グループ 5：保健師。
- グループ 6：労働安全衛生法第 7 4 条に基づく OSH ネットワーク内の OSH 労働者。

また、応急処置に関する研修の法的要件として、労働者の健康管理に関するガイドライン、職場での応急手当訓練の法的要件 (2016 年 6 月 30 日付けの MOH の通達 Circular No.19/2016/TT-BYT) がある。

⑧ 労働安全衛生に関する厳しい要求事項の

対象となる機械、設備、消耗品及び物質の管理に関する法的要求事項

以下のように規定されている。

- 労働安全に関する厳しい要求事項に該当する機械、設備及び備品は、使用前に労働安全検査機関の認定を受け、使用中は定期的に労働安全検査機関の認定を受けなければならない。
- 労働安全に対する厳しい要求事項に該当する機械設備及び物品の認定は、正確で、オープンで、透明性のあるものでなければならない。
- 政府は、付与する権限のある機関、物理的及び技術的基礎に関する条件、労働安全認定機関への資格証明書の付与、再付与、延長又は取消しのための順序、手順及び書類、被検査物の認定要件を満たすための認定者の基準を詳細に規定しなければならない。

⑨ 環境保全及び公共の安全を確保するための仕組み

以下の枠組みが存在する。

- ベトナム環境保護（2014年）第109条では、環境緊急時の対応を規定
- ベトナム環境保護（2014年）第110条では、環境緊急対応部隊の育成を規定
- ベトナム環境保護（2014年）第111条では、環境緊急事態による被害の判定を規定
- ベトナム環境保護（2014年）第112条では、環境修復の責任を規定
- 2015年6月30日付けの通達 Circular No.35/2015/TT-BTNMT は、経済区、工業団地、輸出加工区、ハイテクパークの環境保護を規定している
- 第12条では、工業団地における環境事故・災害の予防、対応及び是正について規定
- 第14条 経済圏又は工業団地管理委員会

の責務

9) OSH 分野に従事する者への教育と供給

① OSH に従事する者への教育制度と内容

OSH の分野に従事する人材は、医師（MD）（一般、専門の MD、疫学・予防医学の MD など）、医師の助手、看護師、薬剤師、エンジニア（環境エンジニア、労働保護・労働安全のエンジニア、化学・物理エンジニアなど）、公衆衛生の学士/MPH/PhD、生物学者、心理学者、生物化学者、血液学者、多分野の技術者など、様々なバックグラウンドがある。

OSH 人材の教育システムは、ベトナムのほとんどの教育システムに含まれており、大学や中間レベルの学校のシステムから構成され、このシステムは、国立と私立の両方で構成されている。

OSH 人材のための教育システムには以下のものがある。

- 予防医学システムの機関
- 大学・医学部・薬学部
- 大学・環境の学校
- 大学・人文社会系学部
- 大学・労働安全衛生・労働保護の学校
- 中級レベルの学校とカレッジ

② 予防医学システムの機関

保健省の管理下には、国立職業・環境衛生研究所（NIOEH）、公衆衛生研究所（ホーチミン市）、タイグエン衛生・疫学研究所、ニャチャンパスツール研究所、海洋医学研究所の4つの研究所があり、OSH における研究、訓練、調整、国際協力、サービス提供を担当している。また、関連する大学・研究機関として、計124施設がある。

③ OSH 分野に従事する人員の供給と供給可

能性

これまで全国の OSH 分野で働く職員のデータはない。2009-2010 年に NIOEH が全国のレベル別予防医療施設・労働検査場 1590 施設を対象に実施した、基本的な労働衛生サービスの提供を強化するためのキャパシティとニーズに関する実態調査の結果によると、労働衛生要員の総数は 4928 人であった。労働衛生担当者の多くは中等教育 (55.3%) を受けているが、大卒・大学院卒が全体の 1/3 以上 (38.5%) を占めている。専門職レベルでは、医師助手が最も多く (28.2%)、次いで看護師 (16.2%)、技術者・学士 (15.5%) となっている。医師 (MD) は 13.6%にとどまり、疫学・予防医学を専門とする MD は 1.2%にとどまった。(Nguyen Bich Diep et al (2012). ベトナムにおける基本的な産業保健サービスの提供におけるキャパシティビルディングの必要性評価. *Journal of Practical Medicine* No.849-850, p.364-369)

VHEMA、MOH の年次 OH 報告書によると、2015 年の全国の OH スタッフの総数は 1,796 人であった。これらのデータは、55 の州・市の予防医学センター、8 つの労働者の健康と環境保護センター、13 の産業支店・部門の保健・労働衛生センターから収集されたものである。労働環境モニタリング、労働者の健康管理、定期健康診断、OD 検出・診断などの OH 活動に従事している医師は 285 人であった。つまり、1 センターあたり平均 4 名の医師が OH 活動に従事することになる。5 名以上の医師がいるセンターは、主にハノイ、ホーチミン市、ビンフック、ドンナイ、クアンニン、バクニンなどの産業が発達している省に集中している。多くの省では医師の数が少なく、労働衛生を担当する医師がいない省もある。一方、仕

事関連の病気は黙々と進化していくため、早期発見は医師の資質と労働環境のモニタリング、定期健康診断、職業性疾患検査の結果に大きく依存する。

2015 年、55 の省・市予防医学センター、8 つの労働衛生環境保護センター、8 つの産業支店保健・労働衛生センターに 50 の職業性疾患診療所が設置された。つまり、すべてのセンターに OD 検出、診断、検査ができる職業性疾患診療所があるわけではない。

10) 労働安全衛生関連機関

① 国際機関、学術機関、その他の機関 (NGO 等) による OSH 活動とその関与

ベトナムの ILO 事務所が設置されている。同国が ILO と協力してきた主な課題としては、グリーン・ジョブ、技能開発、労働統計、労使関係開発、労働安全衛生、社会保障などが挙げられる。国際労働基準と男女平等は、ILO と三者間の協力の枠組みの下で、上記のすべての重要課題の中で主流となっている横断的な問題と考えられている。ベトナムの ILO は現在、ベトナムが 2017-21 年ディーセント・ワーク国プログラムの実施を支援しているが、これは 2006-10 年と 2012-16 年の 2 年間に渡って成功を収めた最初の 2 つのディーセント・ワーク国協力枠組みの継続的なものである。ILO と三者構成員 (政府、労働者団体、使用者団体) の間で行われる第三次ディーセント・ワーク国プログラムは、ベトナムが直面しているディーセント・ワークの課題に取り組むことを目的としている。

ベトナムの WHO 事務所が設置されている。ベトナムにおける WHO の活動は、ベトナムが主要な保健問題に取り組み、WHO 憲法やその他の国際保健法・条約へのコミットメントを果たすための国家保健政策・

戦略・計画（NHPS）を実施する上での支援を必要としていることに基づいている。ベトナムにおける WHO の活動は、世界的・地域的な優先事項、および国連との共同優先事項が、さらに指針となっている。包括的な枠組みを提供するのは、2015年9月に国連総会で採択された「持続可能な開発のための2030アジェンダ」である。

- 戦略的優先事項 1：国民皆保険に向けて、システム目標を達成するための主要な保健システム機能の強化
- 戦略的優先事項 2：公衆衛生の安全と安心を確保するための持続可能な国家能力とパートナーシップの構築
- 戦略的優先事項 3：公衆衛生上重要な伝染性および非伝染性疾患の効果的な管理

ベトナム労働衛生学会が存在し、以下の取組みを行っている。

- 科学技術開発活動に参加し、労働衛生に関するプロジェクトを実施すること。例えば、危険因子、危険な労働環境、労働安全、職業性疾患、ベトナムの代償職業性疾患のリストへの追加などの研究、モニタリング、評価、予測、労働衛生と職業性疾患診断のための方法、基準、国家技術規則の開発、職業性疾患と労働関連疾患の専門知識と検査など。
- 情報の整理、普及、専門知識の交換、知識の普及、国家機関との調整を行い、OSH 分野の職員や専門家に専門的な訓練を提供する。従業員と雇用者のために、OSH に関する意識と理解を広め、教育し、高めること。
- OSH の基準、ガイドライン、政策、計画、対策について、党、国家、政府の管理機関に意見を提供し、OSH に関連する問題について、社会的評価のコンサルタントと批評を提供する。

- 法律に基づいて、OSH の分野で協会、国際機関、地域機関と協力し、経験を交換すること。

② 産業衛生を含む労働衛生サービス

産業保健サービス機関、事業者として以下がある。

- 独立行政法人産業環境衛生研究所（NIOEH）（国）
- ベトナム国家労働安全衛生局（VNIOSH）とベトナム中部と南部の2つの地域機関（国）
- ホーチミン市公衆衛生研究所（国）
- ニャチャンパスツール研究所（国）
- テイ・グエン衛生・疫学研究所（国）
- 海洋医学研究所（国）
- 全国の医科大学の公衆衛生学科（国）
- 13の保健所・産業支所・省内病院（国）
- 63の州の疾病管理センター（国）
- 区市町村の予防医学センター（国）
- 草の根、地域社会、企業レベルでの保健サービス（民間）
- 環境モニタリングセンター（資源環境省・環境省に属するセンター、民間のセンターを含む）（国と民間）
- 州・総合病院・クリニック・ヘルスセンター（国と民間）
- 63州と中央の医療評価・専門家会議（国）
- 企業の保健所・センター（国と民間）
- 労働科学研究所（国）
- 研修センター（国と民間）
- 公衆衛生と環境保護のためのセンター（民間）

③ 不利な労働者集団に対する支援の仕組み

中小企業の労働者、零細企業の労働者、インフォーマル経済の労働者、移民労働者、請

負業者の地位と支援メカニズムとして、一部の特定集団の従業員に対する OSH 方針は、OSH 法（2015 年）第四章「特定集団の従業員に対する労働安全衛生の確保」で以下のように規定されている。

- 第 63 条 女性従業員、未成年の従業員及び障害のある従業員のための労働安全衛生、女性従業員、未成年の従業員及び障害のある従業員のための労働安全衛生は、労働法、障害者法及び本法を遵守しなければならない。
- 第 64 条 高齢者従業員が重労働、危険又は危険な職業又は仕事を行うために雇用される場合の条件
- 第 65 条 労務賃貸の場合の労働安全衛生
- 第 66 条 異なる事業主の従業員が勤務する事業場における労働安全衛生．事業主は、異なる事業主の従業員が多数使用されている事業場においては、これらの事業主が共同して、各事業主の労働安全衛生責任を明確にした文書を作成し、労働安全衛生審査を調整するための職員を配置するように手配しなければならない。
- 第 67 条 ベトナム人ゲスト労働者の労働安全衛生
- 第 68 条 国内労働者の労働安全衛生
- 第 69 条 在宅労働者の労働安全衛生

4. 労働安全衛生対策のレベル

1) OSH に関する国の方針と戦略及び計画等

OSH に関する国の政策と戦略として、労働者のため OSH の確保は、ベトナム共産党設立以来の主要かつ一貫した政策として位置付けられている。2010 年～2020 年の期間、党と国家の指針、路線、政策は以下の文書に示されている。

- 第 11 回党全国大会に提出された政治報告書
- ベトナム共産党中央委員会は、指令 29-CT-TW（2013 年 9 月 18 日付）
- 2006 年 9 月 11 日付の首相による「ベトナムにおける 2010 年までの予防医学国家戦略」と 2020 年に向けた方向性を承認した決定 255/2006/QD-TTg
- 首相による 2013 年 10 月 1 日付けの決定第 122 号/QD-TTg
- 2016 年 6 月 1 日付首相決定第 05/QD-TTg 号 2016 年～2020 年の労働安全衛生に関する国家プログラムの承認
- 2016-2020 年間の職業教育、雇用、労働安全のための目標プログラムの承認に関する首相の 2017 年 6 月 20 日付けの Gov Decision No.899/QD-TTg

また、2021-2030 年の国家社会経済発展戦略として、以下がある。持続可能な開発のための 2030 年計画の実施のための国家行動計画が発行されており、プロジェクト 3 が、労働安全衛生の強化となっている。

2) 労働災害と疾病の統計

① 労働災害

労働災害を 2006-2010 年と 2011-2015 年の 2 つの期間で比較すると、2011-2015 年は 2006-2010 年と比較して、事故件数が 16%、死亡事故件数が 10%、負傷者数が 13.5%、死亡者数が 7.7%、それぞれ増加している。労働災害の発生頻度（死亡者数／労働者 10 万人）は、2006～2010 年と比較して、2011～2015 年は 5.14%減少している。

2011 年～2015 年と 2016 年～2019 年の 2 つの期間の労働災害を比較すると、2011 年～2015 年の期間と比較して、2016 年～2019 年の期間では、労働災害頻度（死亡者数／10 万人）が 10.77%と有意に減少して

いる以外は、すべての指標が有意に増加していることがわかった。死亡事故件数は58.3%、死亡者数は53.3%増加している。

② 職業性疾患

労働衛生年報によると、毎年約10万～30万人の労働者が職業性疾患を検出するために職業性疾患検診に参加している。2019年、全国63省のうち45省が34の代償性職業性疾患のうち27の職業性疾患検診を組織した。危険な環境で働く労働者243,218人が職業性疾患検査を受け、7,265件の職業性疾患が検出された(検査された労働者の3%を占める)。7,265件の職業性疾患のうち、職業性難聴が最も多く(全体の58.6%)、次いで職業性滑液症(15.3%)、職業性慢性気管支炎(5.8%)、職業性石炭じん肺症(4.5%)、珪肺症(1.44%)の順であった。

ベトナム保健環境管理庁(VIHEMA)の推計によると、年間約1000～1500件の新たな職業性疾患が発生しているという。2011年から2019年までの職業性疾患の総数は、49,607件である。職業性疾患の割合が最も高いグループのは物理的要因による職業性疾患グループ(64.8%)で、次いで職業性肺・気管支疾患グループ(23.6%)、職業性皮膚疾患グループ(5.5%)、次いで職業性微生物的要因による職業性疾患グループ(3.4%)となっている。

職業性疾患の数は年々大きく変化していることがわかった(表4.4～4.8参照)。その理由は、第一に、州の予防医学センター(現在はCDCと呼ばれている)やOHセンター/産業部門の病院が、これらの組織がVIHEMAやMOHにデータを報告しているため、職業性疾患の検出・診断能力に依存していることである。第二の理由は、毎年の業種別ターゲットと企業とOD検査を行う組

織との連携(企業がOD検査を行うことに同意し、それを許可していること)である。また、OD検査の能力は、OD検出・診断を行う人材(資格・免許を持っている)や施設によっても変わっている。近年では、OD検査・診断に関する講座が数多く開催され、OD専門のMDやODクリニックが増加している。

③ 報告制度および補償制度の適用範囲と推定される労働災害・疾病

労働安全衛生庁の「労働災害状況報告書」によると、生産事業所・事業所の労働災害の報告率は平均で約6.7%となっている。そのため、実際には報告されている災害・負傷者数の10倍以上の数が発生していることになる。専門家によると、第一の理由は、ほとんどの企業、特に中小企業は規模が小さく、資本が小さいため、OSH確保のための投資に注意を払っておらず、従業員の健康に十分な注意と配慮を払っていないことにあるという。それに伴い、多くの雇用者は、通知、統計、報告の重要性を認識していない。多くのビジネスリーダーは、当局に労働安全衛生、労働災害や企業で発生している職業性疾患の欠点や"事件"を知らせることは、結果に影響を与えることを恐れている。同様に重要な原因として指摘されているのが、使用者の法令遵守の意識の欠如である。多くの使用者は法律の規定を認識しているが、労働者保護の実施に多くのミスや欠点があるために、彼らはしばしば労働災害中に隠蔽し、交渉するために可能なすべての方法を見つける。

企業の"過失"に加えて、労働安全衛生に関する法律に違反している状況はまた、管理機関が任意の解決策を持っていなかったという事実から来ている。法的には、管理

の範囲内で事業を促し、再編成にまだ抜本的ではない。また、労働災害の検査・審査・処理が厳格ではなく、労働災害統計・報告書の様式に関する規定がまだ煩雑で実施が困難であり、企業にとって労働災害・疾病に関する報告・統計・報告の際の不安を引き起こしている。

労働災害・職業性疾患補償制度の利用状況について、社会保険の支給と並行して、社会保険給付の受給者数も増加しており、その中で労災・職業性疾患基金の受給者数は年々着実に増加しています。2006年の労災・職業性疾患（月・1回）受給者数は35,355人、2007年は37,086人（2006年比4.9%増）、2010年は44,493人（2006年比25.85%増）、2011年は48,333人（2010年比8.63%増、2006年比36.71%増）となっている。2008年から2013年まで、ベトナムの社会保障は平均7121人/年が労災・労災給付を受け、参加者の約0.73%を占めていた。そのうち、毎月の給付を受ける人の数は2573人/年で、参加者の0.027%と労働災害や職業性疾患に苦しむ人の数の36.2%を占めている。

3) 法令遵守状況

一般的に、OSH規制の法的遵守状況は、フォーマルセクター、大規模な国家机关、外国投資企業・企業の方が良好である。インフォーマルセクター、例えば、中小企業、工芸村、家事業などでは、通常、OSH規制が遵守されていないか、あるいは遵守が十分ではない。

4) OSHと特定危険有害性への曝露をめぐる問題点

労働環境モニタリングの年次報告書によると、モニタリング対象となっている有害

要因は、通常、温度、湿度、風速、照明、粉塵、騒音、振動、化学物質／毒性ガス、微生物学的要因（真菌／カビ、溶血性結核菌など）、放射線、電磁場であるとされている。OSH法が施行された2016年7月からは、労働環境モニタリングに精神生理学的・人間工学的要因の測定（肉体労働負荷、精神労働負荷、人間工学的要因の評価など）が含まれるようになった。

毎年、測定サンプル数は約50万～90万サンプルで、年々増加する傾向にある。許容曝露限界値（PEL）を超えるサンプル数は6～10%を占め、現在では減少傾向にある。PELを超える検体が多い有害要因としてチェックされているのは、放射線、電磁界、粉塵、騒音、照明などである。年次報告書には、特定の産業における作業環境汚染の状況は反映されていない。

5) OSHに関する問題点への対策

労働者の組織であるベトナム労働総連合（VGCL）は、全国18の全国労働組合と全国63の省・市労働者総連合で構成されるベトナムの単一・統一労働組合組織として、労働者の利益を代表することを任務としている。現在、VGCLの組合員数は600万人を超えている。VGCLは、2017年1月12日付決議第10C/NQ-BCH号を公布し、新たな状況下での労働組合組織におけるOSHの効率化について目標を掲げている。（Source: The National OSH Profile 2011-2015 by MOLISA, 2016）

一方、雇用者の組織として、ベトナム商工会議所（VCCI）がある。VCCIは、ビジネスコミュニティ（民間、公共、外国企業）を代表して重要な役割を果たしており、国際雇用者機構（IOE）に加盟している。また、ベトナム協同組合連合会（VCA）は、全国の

17,000 人の協同組合員と中小企業を含むもう一つの雇用者組織である。

職場での OSH 活動には、メリットとデメリットがあるため、労働者と雇用者が協議をして、職場での啓発活動を行うことが重要である。現在では、安全文化や OSH 文化、予防文化の概念は、公共のメディアで広く宣伝・伝達されており、以下のように事業主と従業員を対象とした OSH 教育プログラム（グループ 1・4）に盛り込まれている。

- グループ 1

- a) OSH に関する政策及び法律の体系

- b) OSH 業務には次のようなものがある。施設における OSH に関する規定の整理、管理、実施、OSH への責任と権限の付与、危険有害要因に関する基礎知識、労働条件の予防と改善のための措置、生産と業務における安全文化。

- グループ 4.

- a) OSH に関する基礎知識：使用者と従業員の権利と義務、従業員のための OSH

に関する方針と制度、危険有害要因に関する基礎知識と労働条件の改善方法、OSH ネットワークにおける労働者の機能と義務、生産と事業における安全文化、OSH に関する規則、看板、OSH に関する指示板、安全装置の使用、個人及び職業的保護装置、労働災害の応急処置技術、職業性疾病の予防

OSH 教育カリキュラムでは、安全文化の定義を紹介し、目標を達成するために取らなければならない安全文化活動の内容を述べ、安全文化のレベルと安全文化の発展と構築の重要な決め手と利点を分析している。

6) OSH に関する研究

OSH に関する研究機関には以下のものがある。

- 独立行政法人産業環境衛生研究所 (NIOEH)

- ベトナム国家労働安全衛生局 (VNIOOSH) とベトナム中部と南部の 2 つの地域機関)

- ホーチミン市公衆衛生研究所

- ニャチャンパスツール研究所

- テイ・グエン衛生・疫学研究所

- 海洋医学研究所

- 全国の医科大学の公衆衛生学科

- 13 の保健所・産業支所・省内病院

- 63 の州の疾病管理センター

- 区市町村の予防医学センター

- 環境モニタリングセンター（資源環境省・環境省所属のセンター、民間のセンターを含む

- 環境学科: 全国の国立大学、ポリテクニク大学、資源環境大学、科学大学、私立大学等。

- 州・総合病院・クリニック・ヘルスセンター

- 63 州と中央の医療評価・専門家会議

- 個人用保護具適合性認証センター

- 労働科学研究所

- MOLISA 研修センター

また、OSH 研究プロジェクトがについて、ベトナム労働総連合 (VGCL) に属するベトナム国立労働安全衛生研究所 (VNIOOSH) とタンロン大学を中心に、国立労働環境衛生研究所 (NIOEH)、ベトナム国立労働安全衛生研究所 (VNIOOSH) で行われている。他にも多くの機関や医科大学が OSH に関する研究を行っている。しかし、これらの情報を収集することは困難である。

7) 労働安全衛生分野の従事者の状況

① 労働安全衛生分野の従事者の構成

これまで全国の労働衛生分野で働く職員のデータはなく、過去 10 年間の全国の労働衛生職員の能力調査も行われていない。2009 年から 2010 年にかけて、NIOEH は WHO と日本政府の支援を受けて、全国 1590 の予防医療施設と労働検査場を対象に、基本的な労働衛生サービスの提供を強化するためのキャパシティとニーズの実態調査が実施された(当時はまだ ADB の予防医療システムに関するプロジェクトが実施されていなかった)。NIOEH の調査結果によると、労働衛生要員の総数は 4,928 人であった。OH 職員のほとんどが中等教育(55.3%)を受けており、大卒・大学院卒が 1/3 以上(38.5%)を占めていた。専門職レベルでは、医師助手が最も多く(28.2%)、次いで看護師(16.2%)、技術者・学士(15.5%)となっている。医師(MD)は 13.6%にとどまり、疫学・予防医学を専門とする MD は 1.2%にとどまった。

専門職レベル別の分布は組織レベルによって異なる。国家レベルでは、医師(MD)が最も多く(40%)、次いでその他の分野(35.1%)、技術者が 26%近くを占めている。州レベルでは、医師が OH 職員の 20.0~32.6%を占め、特に産業保健環境センター(COHE)や産業部門の産業保健センターではその割合が高く(職員全体の 1/3)、環境分野の独身者/技術者の割合が高かった。環境分野の学士・技術者が 20.6~22.1%、次いで技術者(13.5~20.3%)となっている。地区レベルでは、医師助手が全体の 1/3 以上を占め、技術者が 27.5%、医師は 3%にとどまっている。コミュニケーションレベル、企業レベルでは、医師助手と看護師の割合が高い(それぞれ 75%、70%)。省レベルの OSH 検査では、技術者と独身者が過半数(77.1%)を占めている。地方レベルでは、技術者と独身者

が 52.4%、会計士や管理者などの他職種が全体の 1/3 を占めている(35.5%)。(Nguyen Bich Diep et al (2012). Need assessment for capacity building in provision of basic occupational health services in Vietnam. Journal of Practical Medicine No. 849-850, p.364-369)

② 労働安全衛生分野の従事者の課題

急速な経済・技術の発展と国際的な統合を伴う工業化・近代化の状況の中で、OSH 職員は次のような課題に直面している。

- 労働力の安さ
- 鉱業、建設、エネルギー、化学工業、工業化と近代化の電気の使用の増加
- 時代遅れの技術レベルと労働安全と環境衛生に注意を払っていない中小企業の強い発展
- 工芸村の開発
- 農業部門から産業部門への大量の労働者の移動
- 農業・林業・漁業生産の労働力は、国全体の総労働力の 50%を占め、農業と農村地域の工業化と近代化の過程
- 国際的な経済統合
- デジタル化と ICT、自動化とロボット、ナノテクノロジーなどの先端技術を扱う際の労働安全衛生の新たな課題とリスク

その他の課題として、労働者の高齢化、男女格差、重工業や移民労働者がある。

③ 労働安全衛生職員に対する研修と情報提供

OSH 担当者のための研修と情報について、2011 年から 2014 年まで、毎年平均して、企業の労働安全衛生に従事する 2 万人以上の役員が労働安全衛生の訓練を受け、

支援を受けた。

保健省によるネットワーク内の OH スタッフのための研修と情報提供について、保健省の報告書によると 2011 年から、中央省と市の 3 つの地域で、高リスク部門（鉱業、化学工業、建設、健康部門）の職業性疾患予防と職業健康のモデルの適用を指導するために、年間平均 3 回のトレーニングコースを支援している；職業性疾患予防モデルは、建設、化学工業、鉱業、健康部門などの高リスク産業を中心に、300 以上の新しい労働施設に適用された。500 回以上の職業性疾患リスクの高い施設の訓練コースを開催し、30 万人以上の従業員の職業性疾患検査を行い、2 万 5 千以上の生産事業所の労働環境を測定・検査し、100 回近くの訓練コースを開催し、労働環境モニタリング、職業性疾患診断、職業性疾患評価のプロセスを完成した。

また、職業性疾患の診断に従事する OSH 職員のための研修として、2011 年から 2015 年の間に、NIOEH とホーチミン市公衆衛生研究所により、OSH 分野に従事する 1,689 名の医師を対象に、様々なレベルで OD 診断、評価、治療、リハビリテーションに関する 69 のトレーニングコースが開催された。

作業環境のモニタリングに従事する OSH 職員のための研修として、2011 年から 2015 年の間に、NIOEH とホーチミン市公衆衛生研究所により、省・地区レベルで 1,050 名の参加者を対象に 42 の職場環境モニタリング研修が実施された。2016-2020 年の NIOEH による研修データ（表 4.17）によると、州の CDC、保健センター/病院、産業界の支部/セクター、州や民間の環境モニタリングセンターから 848 名の職員が、この 1 ヶ月間の認定コースを受講した。さらに、NIOEH は、作業環境モニタリングにおける精神生理学的、人間工学的要因のモ

ニタリングと測定、実験室での化学的要因分析の指導トレーニングなど、いくつかの具体的なコースを開催した。

企業の保健ユニット/センターで働く医療スタッフのための研修も実施されている。OSH 法が施行されたことにより、企業の保健ユニット・センターで従業員の健康管理を行う医療従事者は、労働衛生に関する認定トレーニングコースを受講する必要がある（詳細は 3.7.1 項を参照）。保健省が認定した研修機関は、予防医学システムの 3 つの機関、例えば、National Institute of Occupational and Environmental Health (NIOEH)、ホーチミン市の Institute of Public Health (Institute of Public Health in Ho Chi Minh City)、Nha Trang Pasteur Institute (Nha Trang Pasteur Institute)、その他いくつかの OSH 研修センターなどである。

8) 事業所における国際認証の取得状況

ベトナムでは、多くの企業が労働法やフレームワークに関連する政策や規制の普及・普及・適用、技術的な解決策の研究・適用、危険性の特定、リスクの評価、OSH や労働衛生リスクを防止するための管理措置のためのシステムやツールの適用などを通じて、労働安全衛生を管理している。例えば、OSH 管理では、ISO9001、ISO14001、OHSAS18001、5S、KY 活動（危険予知）が行われている。しかし、職場における危険有害要因の評価を行い、潜在的な危険を排除・最小化するための適切な対策を提案し、労働条件の改善や企業の従業員の健康管理を行うことは、先進的な国際的な手法や規格に沿って、十分かつ体系的に実施されていない。

ISO 調査 2019 によると、ベトナムの国際

認証の全体的な数は表 4.20 に示されている。現在までに、ベトナムの合計 304 の企業/組織が正式に ISO 45001: 2018 の認証を取得した。(食品、飲料・たばこ、電気・光学機器、基礎金属・加工金属製品、鉱業・採石業、繊維・繊維製品)

9) 労働者の OSH に対する意識と教育レベル

近年、労働安全衛生に関する知識を普及させる活動が、特に民間経済部門や工芸村、隠れた要因がある農業生産の現場で行われるようになると、不安や不安全・不健康のリスクが高いことがクローズアップされ始めた。毎年開催される「労働安全衛生と火災・爆発防止に関する全国週間」は、全国の多くの労働者と生産・事業所から好意的な反応を得ている。そのおかげで、従業員や事業主の OSH 活動に対する意識や理解が徐々に向上してきている。

しかし、使用者や従業員の OSH に対する意識はまだまだ低いのが現状である。使用者、特に小規模企業、個人生産家庭、工芸村、農業協同組合では、労働安全衛生法の理解不足と遵守意識の欠如により、労働安全衛生の仕事を行わないことによる結果や長期的な被害に注意を払わずに、目先の経済的利益を追求しなければならない。現地の報告書から労働災害の原因を分析した結果、43%が労働安全に関する技術基準や規則の違反によるものであった。

5. 現地専門家との議論を通じて得た情報

ベトナムにおいては、OSH の法体系が確立しており、過去数年間にわたって OSH 管理の強化が図られてきた。しかし、労働災害や疾病の報告が不十分であること、多くの労働者が基本的な労働衛生サービスを受け

ていないこと、特にインフォーマルセクターでは、労働者の健康管理が行われていない。課題として、OSH 監督の実施が十分ではなく、また OSH 人材が量的にも質的にも不足していることが挙げられる。また、運用面でも、行政システムが分断的であり、それぞれが権限を持っていることも課題と考えられる。

このような課題を解決するためには、OSH 監督制度の改善と人材（特に現場に近いレベル）の能力開発が必要と考えられる。人材としては、臨床医師、予防医師、看護職、ハイジニスト、セーフティオフィサーなどが対象となる。

これまで、米国、日本、韓国、シンガポール、デンマーク、ドイツなどから支援を受けた（添付 4）。

今後、日本から希望する支援として、若年労働者等のインフォーマルセクターの職場における OSH 管理の経験を共有すること、人材育成などが主なものである。

D. 考察

1) 行政機関、法体系および監督体制

ベトナムでは、労働安全衛生法の法体系を運用するために、州レベルの行政機関として、労働傷病兵社会省 (MOLISA)、保健省 (MOH)、人民委員会が、外部機関として、労働組合 (ベトナム労働総連合: VGCL)、ベトナム農民協会、ベトナム商工会議所 (VCCI)、ベトナム協同組合など、様々な機関や組織が存在し、法に基づき明確にそれぞれの管理責任が明確に規定されている。例えば、労働安全行政は MOLISA、労働衛生行政は MOH が管掌している。しかしながら、組織の枠組みはあるものの、必ずしも機能的に運用できていないところに課題が

ある。例えば、労働災害や職業病などへの対応には、検査・診断、治療、報告、審査認定・補償、企業への指導、それぞれのプロセスにステークホルダーが存在するが、それらの組織間での情報共有や連携がうまくいっていないために、政府統計の労働災害や職業病には欠損がかなりあると推計されている。また、監督機能が十分に行き届いておらず、事業所の法令順における実態は十分に把握できていない。

そのため、国の体制や制度に対する提言は、以下の通りである。これらの問題に対して、日本の経験を共有したり、ベトナムの労働安全衛生制度の強み、弱み、有効性に関するニーズ調査を支援したりすることが求められる。

- 労働安全衛生に関連する様々な省庁、レベル、組織間の調整を強化する。
- 国、州、自治体全てのレベルにおける監督体制を強化する。特に自治体レベルの監督官に対する教育訓練が必要である。
- インフォーマルセクターにおける管理監督の責任の所在を明確にする。
- 労働災害・職業性疾患報告制度を改善する。また、州・自治体レベルでの職場環境モニタリング、職業病診断の能力を向上させる。

2) 事業所の労働安全衛生管理体制

労働安全衛生法が施行されてから、事業所における安全衛生活動がより一層注目されるようになってきている。事業所では、安全衛生委員会が組織され、年間計画や緊急時対応計画を策定し、安全管理者や産業医などを中心にリスクアセスメントや作業環境モニタリング、健康診断などの健康管理活動が実施され機能的に安全衛生活動が行われている事業所がある一方で、監督機能が弱

いこともあり、特にインフォーマルセクターにおいて、その実態はよくわかっていない。また、毎年約 200 万人の新入社員が労働市場に参入し、10 万社近くの新企業が誕生し、多くの新技術や新設備が導入され、職場での安全衛生管理が困難になっていることが喫緊の課題となっている。例えば、若手従業員が作業手順を順守していない、保護具を適切に使用していないなどの問題が散見され、労働災害や職業病の大きなリスクになっていると考えられる。

そのため、事業所の労働安全衛生管理体制に対する提言は、以下の通りである。これらの問題に対して、日本の職場における管理体制を共有することのニーズが高いと考えられる。また、インフォーマルセクターの課題についての特別プロジェクトの開発支援が求められる。

- 労働安全衛生活動の実施における雇用主と労働者の責任を明確にするために、地方自治体や外部機関が雇用主と労働者、特に若年労働者を対象に、労働安全衛生に関する情報提供、啓発、研修を強化する。
- 高校・専門学校の授業に労働安全衛生に関する教育を導入する。
- インフォーマルセクターの労働者の健康管理を中心とした労働安全衛生活動の実施ガイドラインに関する具体的な法制化文書を作成する。

3) 労働安全衛生の専門人材

事業所には、労働安全、環境を担当する安全管理者と労働衛生を担当する医師、医師助手、看護師、薬剤師、技術者(環境技術者、労働保護・労働安全技術者、化学・物理技術者など)、公衆衛生専門家など様々なバックグラウンドを持つ専門職が存在し、かつこ

これらの者に対する高等教育が提供されている。しかしながら、これらの専門職の国家試験は存在せずカリキュラム修了のみによって国家資格として機能することから、そのレベルは一様でない。また、急速に増える事業所の需要に対して十分に専門家を養成、供給できていないことから、かなりの事業所において専門職の選任がない、もしくは形骸化している可能性がある。

そのため、労働安全衛生の専門人材に対する提言は、以下の通りである。これらの問題に対して、日本としてこれらの専門人材のニーズアセスメントを支援するとともに、各学習プログラムの設計に向けた日本の研修プログラムやカリキュラムの共有を通じた学習コースの設計が求められる。

- 実需を満たすために専門職を養成する大学などの教育機関を増やす。短期的には、オンラインコースの開発とともに、資格取得予定者が実務を行いながら、学習、資格取得できるような社会人大学院コースや短期派遣コースの開発が必要である。
- 国際的な基準に適合するように既存の教育研修プログラムを修正する。短期的には、作業環境モニタリング、職業性疾患を含む産業医学に関する認定トレーニングの能力構築と拡大が必要である。長期的には、国家資格試験の実施や資格更新に向けた生涯学習プログラムの設計が必要である。

E. 結論

ベトナムは、国家戦略のもと、労働安全衛生法を制定して、労働安全衛生管理の向上を進めている。しかし、経営者の理解促進が十分ではなく、専門人材が不足するなどを

背景として、法令の運用に課題を抱えている。同国の安全衛生管理の改善に向けて、日本の経験の共有および人材育成への貢献の余地は大きいと考えられる。

F. 引用・参考文献

附属資料のとおり

G. 研究業績

なし

H. 知的所有権の取得状況

なし

添付1 調査チェックリスト

添付2 調査委託者

添付3 Web 会議での質問項目

添付4 諸外国から受けた支援の内容

附属資料:ベトナム調査報告書(英文)

A check sheet for collecting information for support needs assessment of occupational safety and health (OSH) in Asian countries

Primary items	No	Secondary items	Examples of secondary items
I. National information	1	History	1.1.1 Summary of country history
	2	Religion and Ethnicity	1.2.1 Number and percentage of religion and ethnics (including regional characteristics) 1.2.2 Lifestyles and dietary restriction for culture and religion
	3	Population	1.3.1 Current number of population, population transition, and population pyramid 1.3.2 Demography, literacy and other relevant information
	4	Politics and Policy	1.4.1 Current political system 1.4.2 Current political party and results of a recent election 1.4.3 Main national policy and political challenges
	5	Constitution and General Law System	1.5.1 Summary of constitution 1.5.2 Summary of general law system
	6	Industry and Economy	1.6.1 Major industry 1.6.2 Economic status and employment scene
	7	Labor-Management Relations, Contractors, Informal Sector Workers, and Migrants	1.7.1 Labor dispute and other labor-management relations 1.7.2 Trend of contractors, informal sector workers and migrants (international and domestic)
	8	Public Security, Disaster and Public Safety	1.8.1 Current status of security issues such as crimes and riots, occurrence of natural disasters and traffic accidents, etc.
	9	Relationship with Japan	1.9.1 Relations with Japan in politics and economy 1.9.2 Local status of Japanese companies operation 1.9.3 Status of Official Development Assistance (ODA) by Japanese government
II. Healthcare and Public health	1	Status of Public Health, Disease, and Cause of Death	2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.
	2	Training and Supply for Physicians and Healthcare Professionals	2.2.1 Educational system for healthcare professionals 2.2.2 List of universities for healthcare professionals 2.2.3 Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians).
	3	Status and Quality of Healthcare	2.3.1 Status of healthcare settings (number and national/private) 2.3.2 Monitoring and evaluation of quality of healthcare (including international accreditation and certification).
	4	Status of Public Health Agency	2.4.1 Status of public health center and relevant agencies, such as WHO office and other international organizations
III. OSH framework	1	OSH Laws & Regulations	3.1.1 Major OSH laws & regulations and recent amendments 3.1.2 Other related legislations on safety, health and environment, and recent amendments 3.1.3 ILO conventions ratified.
	2	Mechanism and Status for Law Enactments	3.2.1 Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities)
	3	Authority or Body, Responsible for OSH	3.3.1 Authority or body, responsible for OSH
	4	Mechanisms for Ensuring Compliance including the System of Inspection	3.4.1 Number and inspection status of labour inspection office 3.4.2 Utilization of private agency for inspection 3.4.3 Reporting and notification system for workplaces
	5	Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases	3.5.1 Workmen's compensation insurance and social security schemes 3.5.2 Approval standards for occupational injuries and diseases 3.5.3 Occupational disease list
	6	Workplace Organization for OSH Management	3.6.1 Workplace organization for OSH management by regulations 3.6.2 OSH committee 3.6.3 OSH training at workplaces
	7	Personnel engaged in the area of OSH	3.7.4 Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists 3.7.5 Minimum staffing standards for personnel engaged in the area of OSH
	8	Regal Requirements for Workplace Activities for OSH Management	3.8.1 Regal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc. 3.8.2 Mechanisms to prevent industrial disaster protect environment and promote public safety
	9	Education and Supply for Personnel engaged in the area of OSH	3.9.1 Educational system and contents for personnel engaged in the area of OSH 3.9.2 List of universities and training institute 3.9.3 Supply and availability for personnel engaged in the area of OSH
	10	Activities and Involvement by International Organizations, Academic Insistutes and Non-Governmental Organization	3.10.1 OSH activities and involvement by international organizations, academic insistutes and other agencies, such as Non-Governmental Organization
	11	Occupational Health Services including Industrial Hygiene	3.11.1 List of occupational health service providers and their service contents and quality (national/private)
	12	Support Mechanisms for Disadvantageous Group of Workers	3.12.1 Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors
IV. OSH level	1	National Policy and Strategies for OSH	4.1.1 Conditions, details and operational status of national policy, strategies and plans for OSH
	2	Occupational Injury and Disease Statistics	4.2.1 Occupational injury and disease statistics 4.2.3 Coverage by reporting and compensation schemes and estimated occupational injury and disease
	3	Legal Compliance Status	4.3.1 Legal compliance status for OSH regulations
	4	Problems concerning OSH and Exposure to Specific Hazards	4.4.1 Problems concerning OSH in all and specific industries 4.4.2 Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries
	5	Measures against Problems concerning OSH	4.5.1 OSH policies and programmes of organizations of employers and workers 4.5.2 Advantages and disadvantages of ongoing activities related to OSH at workplace 4.5.3 Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace
	6	Researches in OSH	4.6.1 List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH 4.6.2 Main research items and projects in OSH research and which institutions implement these (national level / institutional level)
	7	Status for Personnel engaged in the area of OSH	4.7.1 Ability and challenges of personnel engaged in the area of OSH 4.7.2 Training and information for OSH personnel engaged in the area of OSH
	8	Status for International Certification at Workplaces	4.8.1 Status for international certification at workplaces (e.g. ISO 45001)
	9	Worker's Awareness and Educational Levels regarding OSH	4.9.1 Worker's awareness and educational levels regarding OSH
V. Analysis and action plan	1	Gaps analysis of existing national OSH systems and Recommendations of Action Points	5.1.1 Gaps analysis of existing national OSH systems 5.1.2 Recommendations of action points for national OSH systems 5.1.3 Support needs assessment of national OSH systems from Japanese government
	2	Gaps analysis of current OSH Management at workplaces and Recommendations of Action Points	5.2.1 Gaps analysis of current OSH management at workplaces 5.2.2 Recommendations of action points for OSH management at workplaces 5.2.3 Support needs assessment of OSH management at workplaces from Japanese government
	3	Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points	5.3.1 Gaps analysis of existing professional education for personnel engaged in the area of OSH 5.3.2 Recommendations of action points for personnel engaged in the area of OSH 5.3.3 Support needs assessment of personnel engaged in the area of OSH from Japanese government

調査委託者

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Interview contents for the interview

AM 1:00-2:00 (VST) 18th January 2021

Priority issues

1. What would be your main point to raise from this report? Do you feel any strength, weaknesses or gap in Vietnamese OSH system?
2. If you were consultant/expat commissioned by WHO to advise to Vietnam Government on how to improve their OSH system, what would be your advice for Vietnamese government upon reading whole report?
3. I understand that there is a high need for human resource development, in which case, what topic and which professionals is particularly prioritized? (5.3 pp.370)

Previous support

4. What kind of technical supports has been conducted from other countries in the last decade? (Country, details, background and status of implementation, impacts and challenges)

Strategy to provide support

5. How to provide technical support from Japan to share experiences how to manage OSH at workplace, such as for young workers? (5.2.3 pp.370)

Questions from the report

The following item no.6-8 are asking for understanding the national structure of occupational disease management: a flow of health examination, diagnose, fitness-for-work, treatment, and compensation, and the relationship between key players.

6. If there is any system malfunction in law enforcement, if so there is any coordination mechanism, how it is being managed? Any challenges? For example, occupational lung diseases (this was the most prevalent OD): There is good legal background but not good implementation of PPE in factory in spite of regular inspection. How inspectors evaluated this issue? (I think inspectors revealed the problem but why it is not corrected) what is the coordination mechanism behind of that?
7. Regarding occupational disease doctor, what organization does they belong to (e.g. governmental institute, health clinic, or company) and what are major tasks (e.g. health check-up, diagnosis of OD, inspection, and clinical practice)? (3.7.1.2 pp.180)
8. After periodic health examination or examination for OD, who make the decision and how to deal employees in case of detecting problems?
9. Regarding health unit/center (or occupational physician) in the workplace, is there

any role and activities based on the OSH regulation in addition to providing clinical practice and first-aid? (3.7.1.2 pp.180) For example, attending OSH committee, conducting health check-up, diagnoses of OD, and work arrangement for workers with illness.

10. Regarding preventive medical doctor, what field of education is they received (especially in occupational health), what organization does they mainly belong to (e.g. governmental institute, health clinic, or other) and what are major tasks after graduation? (2.2.1.3 pp.67)
11. Regarding occupational hygienist, what organization does they belong to (e.g. governmental institute, private environmental monitoring institute, or company)?

MOH/NIOEH が受けた支援

1. 米国 NIOSH、大学/研究機関/AIHA（米国産業衛生協会）に
OSH、労働・環境衛生、ODS（珪肺症、職業性肺疾患、農薬中毒、X線検査など）に関する研修コース/ワークショップ/国際会議、子どもの健康と環境に関する研究プロジェクト（鉛電池リサイクル村の子どもの鉛中毒）と介入など。
2. 日本政府および日本の WHO CC、厚生労働省
WHO の支援による「労働者の健康を守るためのプロジェクト」フェーズ I（2009～2011 年）、フェーズ II（2012～2014 年）：一部のリスク産業（健康産業、農業、工芸村、建設、鉱業、化学産業）における基礎的な産業保健サービスの向上、アスベスト関連疾患をなくすための国家行動計画の策定と実施のための能力構築（職業性肺疾患（X線検査）やアスベスト症の検出に関する研修コースやワークショップの開催、中皮腫に関する調査など）、アスベスト関連疾患をなくすための国家行動計画の策定と実施のための能力構築。2011 年から 2015 年までの労働安全衛生に関する国家プログラムの検査・監督を支援する。
3. タイの研究機関・大学
能力開発（労働・環境衛生に関する博士課程、修士課程、短期トレーニングコース）、電子廃棄物リサイクルが労働者の健康と子供の健康に与える影響、地下水のヒ素汚染と子供の健康に関する研究など。シンガポール WHO CC：医療施設における OSH に関するトレーニングコース
4. 韓国の WHO CC（KOSHA）
労働衛生と職業病診断の研修、OSH マネジメントシステムなど

MOLISA が受けた支援

5. デンマーク政府
2011 年～2015 年の労働安全衛生に関する国家プログラムの実施を支援するプロジェクト：2011-2015 年の国家プログラムの目標と活動の実施：労働災害の発生頻度の減少、定期的な健康診断を実施する事業所の増加、業務上の疾病を発見するために検査を受ける人の数の増加、企業や従業員への労働安全衛生に関するコミュニケーションとトレーニング活動の促進にプラスの影響を与える。
6. 日本（日本政府および ILO）
プロジェクト「労働安全衛生に関する国家プログラムの効果的な実施と職場における労働安全衛生のための能力開発のための支援」：第 1 次労働安全衛生国家プログラムの効果的な実施と第 2 次労働安全衛生国家プログラムの開発を通じて、労働安全衛生に関する国家管理体制の構築と中小企業の労働安全衛生の向上に貢献する。

「ベトナムにおける高リスク職業における労働安全衛生」：2011年から2015年までの労働安全衛生に関する国家プログラムの枠組みの中で、ベトナムの高リスク分野（建設、鉱業、化学物質）における労働安全衛生に関する基準の実施を改善し、アスベストやその他の化学物質による従業員の健康へのリスクや毒性を防止することを目的としている。

7. 韓国

韓国政府が支援する「労働安全衛生センターの能力を強化し、労働安全衛生に関する国家研修センターになるために」：能力を強化し、専門家、専門家と近代的な施設で動作する専門家のチームとベトナムの主要な OSH 研修センターになるために OSH 研修センターを開発するには、国全体のために、効果的にトレーニングサービス、トレーニング、コンサルティング、研究、技術移転を提供することができるようにするために、監視と他の組織のトレーニングや訓練の質の評価に参加し、ベトナムの労働安全衛生のためのトレーニングセンターと徐々に地域で拡大しています。

8. ドイツ

ドイツ政府が支援する国際社会保障協会（ISSA / Mining）の国際鉱業予防委員会との協力プログラム：労働安全衛生と労働検査の開発；労働災害の予防、労働災害のリスクの高い産業や職業のリスク管理、特に鉱業に焦点を当てた。

THE PROFILE OF OCCUPATIONAL SAFETY AND HEALTH IN VIETNAM

*(This activity was supported by WHO CC in
Japan)*

Compiled by

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The National Institute of Occupational & Environmental Health

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CONTENTS

	Page
PART I: NATIONAL INFORMATION	
1.1. History	1
1.1.1. Summary of country history	1
1.2. Religion and Ethnics	2
1.2.1. Number and percentage of religion and ethnics (including regional characteristics)	2
1.2.2. Lifestyles and dietary restriction for culture and religion	5
1.3. Population	7
1.3.1. Current number of population, population transition, and population pyramid	7
1.3.2. Demography, literacy and other relevant information	8
1.4. Politics and Policy	10
1.4.1. Current political system	10
1.4.2. Current political party and results of a recent election	13
1.4.3. Main national policy and political challenges	15
1.5. Constitution and General Law System	21
1.5.1. Summary of constitution	21
1.5.2. Summary of general law system	22
1.6. Industry and Economy	24
1.6.1. Major industry	24
1.6.2. Economic status and employment scene	25
1.7. Labor-Management Relations, Contractors, Informal Sector Workers, and Migrants	30
1.7.1. Labor dispute and other labor-management relations	30
1.7.2. Trend of contractors, informal sector workers and migrants (international and domestic)	35
1.8. Public Security, Disaster and Public Safety	38
1.8.1. Current status of security issues such as crimes and riots, occurrence of natural disasters and traffic accidents, etc.	38
1.9. Relationship with Japan	45
1.9.1. Relations with Japan in politics and economy	45
1.9.2. Local status of Japanese companies operation	47

1.9.3. Status of Official Development Assistance (ODA) by Japanese government	48
PART II. HEALTHCARE AND PUBLIC HEALTH	49
2.1. Status of Public Health, Disease, and Cause of Death	49
2.1.1. Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.	49
2.2. Training and Supply for Physicians and Healthcare Professionals	61
2.2.1. Educational system for healthcare professionals	61
2.2.2. List of universities for healthcare professionals	70
2.2.3. Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians).	73
2.3. Status and Quality of Healthcare	79
2.3.1. Status of healthcare settings (number and national/private)	79
2.3.2. Monitoring and evaluation of quality of healthcare (including international accreditation and certification).	90
2.4. Status of international Public Health Agency	99
2.4.1. Status of international public health center and relevant agencies, such as WHO office and other international organizations	99
PART III. OCCUPATIONAL SAFTY AND HEALTH FRAMEWORK	
3.1. OSH Laws & Regulations	116
3.1.1. Major OSH laws & regulations and recent amendments	116
3.1.2. Other related legislations on safety, health and environment, and recent amendments	130
3.1.3. ILO conventions ratified	133
3.2. Mechanism and Status for Law Enactments	136
3.2.1. Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities)	136
3.3. Authority or Body, Responsible for OSH	141
3.3.1. Authority or body, responsible for OSH	141
3.4. Mechanisms for Ensuring Compliance including the System of Inspection	146
3.4.1. Number and inspection status of labour inspection office	146
3.4.2. Utilization of private agency for inspection	150
3.4.3. Reporting and notification system for workplaces	150

3.5. Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases	156
3.5.1. Workmen's compensation insurance and social security schemes	156
3.5.2. Approval standards for occupational injuries and diseases	165
3.5.3. Occupational disease list	169
3.6. Workplace Organization for OSH Management	171
3.6.1. Workplace organization for OSH management by regulations	171
3.6.2. OSH committee	175
3.6.3. OSH training at workplaces	177
3.7. Personnel engaged in the area of OSH	178
3.7.1. Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists	178
3.7.2. Minimum staffing standards for personnel engaged in the area of OSH	182
3.8. Legal Requirements for Workplace Activities for OSH Management	184
3.8.1. Legal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc.	192
3.8.2. Mechanisms to prevent industrial disaster protect environment and promote public safety	207
3.9. Education and Supply for Personnel engaged in the area of OSH	211
3.9.1. Educational system and contents for personnel engaged in the area of OSH	211
3.9.2. List of universities and training institute	214
3.9.3. Supply and availability for personnel engaged in the area of OSH	224
3.10. Activities and Involvement by International Organizations, Academic Institutes and Non-Governmental Organization	230
3.10.1. OSH activities and involvement by international organizations, academic institutes and other agencies, such as Non-Governmental Organization	230
3.11. Occupational Health Services including Industrial Hygiene	236
3.11.1. List of occupational health service providers and their service contents and quality (national/private)	236
3.12. Support Mechanisms for Disadvantageous Group of Workers	240

3.12.1. Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors	240
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PART IV. OCCUPATIONAL SAFETY AND HEALTH LEVEL

4.1. National Policy and Strategies for OSH	246
4.1.1. Conditions, details and operational status of national policy, strategies and plans for OSH	246
4.2. Occupational Injury and Disease Statistics	258
4.2.1. Occupational injury and disease statistics	258
4.2.2. Coverage by reporting and compensation schemes and estimated occupational injury and disease	271
4.3. Legal Compliance Status	276
4.3.1. Legal compliance status for OSH regulations	276
4.4. Problems concerning OSH and Exposure to Specific Hazards	279
4.1.1. Problems concerning OSH in all and specific industries	279
4.1.2. Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries	284
4.5. Measures against Problems concerning OSH	306
4.5.1. OSH policies and programmes of organizations of employers and workers	
4.5.2. Advantages and disadvantages of ongoing activities related to OSH at workplace	313
4.5.3. Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace	315
4.6. Researches in OSH	317
4.6.1. List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH	
4.6.2. Main research items and projects in OSH research and which institutions implement these (national level / institutional level)	321
4.7. Status for Personnel engaged in the area of OSH	332
4.7.1. Ability and challenges of personnel engaged in the area of OSH	332

4.7.2. Training and information for OSH personnel engaged in the area of OSH	335
4.7.3. Training and information for OSH personnel engaged in the area of OSH	336
4.8. Status for International Certification at Workplaces	343
4.8.1. Status for international certification at workplaces (e.g. ISO 45001)	343
4.8.2. Worker's Awareness and Educational Levels regarding OSH	351
PART V. ANALYSIS AND ACTION PLAN	
5.1.Gaps analysis of existing national OSH systems and recommendations of Action Points	356
5.1.1. Gaps analysis of existing national OSH systems	356
5.1.2. Recommendations of action points for national OSH systems	364
5.1.3. Support needs assessment of national OSH systems from Japanese government	364
5.2. Gaps analysis of current OSH Management at workplaces and recommendations of Action Points	364
5.2.1. Gaps analysis of current OSH management at workplaces	
5.2.2. Recommendations of action points for OSH management at workplaces	369
5.2.3. Support needs assessment of OSH management at workplaces from Japanese government	369
5.3. Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points	369
5.3.1. Gaps analysis of existing professional education for personnel engaged in the area of OSH	
5.3.2. Recommendations of action points for personnel engaged in the area of OSH	375
5.3.3. Support needs assessment of personnel engaged in the area of OSH from Japanese government	376

PART I

NATIONAL INFORMATION

1.1. History

1.1.1 Summary of country history

The history of Vietnam can be traced back to around 4000 years ago^{*}. Archaeological findings from 1965, still under research, show the remains of two hominines closely related to *Sinanthropus*, dating as far back as the Middle Pleistocene era, roughly half a million years ago[†]. Pre-historic Vietnam was home to some of the world's earliest civilizations and societies - making them one of the world's first people who practiced agriculture. The Red River valley formed a natural geographic and economic unit, bounded to the north and west by mountains and jungles, to the east by the sea, and the south by the Red River Delta[‡]. The need to have a single authority to prevent floods of the Red River, to cooperate in constructing hydraulic systems, trade exchange, and to fight invaders, led to the creation of the first Vietnamese states approximately 2879 BC. However, archaeologists suggested the Đông Sơn culture found in Northern Vietnam, Guangxi, and Laos was around 700 BC.

Vietnam's peculiar geography made it a difficult country to attack, which is why Vietnam under the Hùng kings was for so long an independent and self-contained state. Once Vietnam did succumb to foreign rule, however, it proved unable to escape from it, and for 1,000 years, Vietnam was successively governed by a series of Chinese dynasties: the Western Han, Xin, Eastern Han, Eastern Wu, Western Jin, Eastern Jin, Liu Song, Southern Qi, Liang, Sui, Tang, Wu Zhou, and Southern Han. During these 1,000 years, there were many uprisings against Chinese domination, and at certain periods Vietnam was independently governed under the Trieu, Trung Sisters, Early Lý, Khúc, and Dương Đình Nghệ-although their triumphs and reigns were temporary.

^{*} Taylor, Keith (1983). *The birth of Vietnam*. Berkeley: University of California Press. p. xvii. [ISBN 978-0520074170](https://doi.org/10.1017/9780520074170).

[†] https://web.archive.org/web/20100106204725/http://www.bvom.com/resource/vn_history.asp?pContent=Pre-History

[‡] Charles F. W. Higham (2017-05-24). "[First Farmers in Mainland Southeast Asia](https://doi.org/10.7152/jipa.v41i0.15014)". *Journal of Indo-Pacific Archaeology*. University of Otago. **41**: 13–21. [doi:10.7152/jipa.v41i0.15014](https://doi.org/10.7152/jipa.v41i0.15014)

During the Chinese domination of northern Vietnam, several civilizations flourished in what is today central and south Vietnam, particularly the Funan and Cham. The founders and rulers of these governments, however, were not native to Vietnam. From the 10th century onwards, the Vietnamese, emerging in their heartland of the Red River Delta, began to conquer these civilizations.

When Ngô Quyền (King of Vietnam, 938–944) restored sovereign power in the country with the victory at the battle of Bạch Đằng River, the next millennium was advanced by the accomplishments of successive local dynasties: Ngô, Đinh, Early Lê, Lý, Trần, Hồ, Later Trần, Later Lê, Mạc, Trịnh, Nguyễn, Tây Sơn and again Nguyễn. At various points during the imperial dynasties, Vietnam was ravaged and divided by civil wars and witnessed interventions by the Song, Yuan, Cham, Ming, Siamese, Qing, French, and Imperial Japan.

The Ming Empire conquered the Red River valley for a while before native Vietnamese regained control and the French Empire reduced Vietnam to a French dependency for nearly a century, followed by occupation by the Japanese Empire. Political upheaval and Communist insurrection put an end to the monarchy after World War II, and the country has proclaimed a republic[§].

The capital, Hanoi, is located in the north, while the country's largest city, Ho Chi Minh City (formerly Saigon), is in the south. Vietnam experienced a period of prolonged warfare in the mid-20th century, and a partitioning (1954–75), first militarily and later politically, into the Democratic Republic of Vietnam, better known as North Vietnam, and the Republic of Vietnam, usually called South Vietnam. Following reunification in April 1975, the Socialist Republic of Vietnam was established in July 1976^{**}.

1.2. Religion and Ethnic

1.2.1 Number and percentage of religion and ethnics (including regional characteristics)

Ethnic Groups: Vietnam has an estimated population of just over 85% belonging to the Kinh (Viet) ethnic group. Other minority ethnic groups include Tay, Thai, Muong, Khmer, Mong, Nung, and Hoa. 'Vietnam is a multi-nationality country with 54 ethnic groups. The Viet (Kinh) people account for 87% of the country's population and mainly inhabit the Red River delta, the central coastal delta, the Mekong delta, and major cities. The other 53 ethnic minority groups,

[§] https://en.wikipedia.org/wiki/History_of_Vietnam#cite_note-4

^{**} <https://www.britannica.com/place/Vietnam>. Accessed on 05 October 2020

totaling over 8 million people, are scattered over mountain areas (covering two-thirds of the country's territory) spreading from the North to the South.

Among ethnic minorities, the most populated area Tay, Thai, Muong, Hoa, Khmer, Nung... with a population of around 1 million each, while the least populated is Brau, Roman, Odu with several hundred people each. The Viet people succeeded in establishing a centralized monarchy right in the 10th century. The Cham people once boasted a flourishing culture early in history. The Tay, Nung, and Khmer peoples had reached high levels of development with the presence of various social strata. The Muong, Hmong, Dao, Thai peoples... gathered under the rule of local tribal heads.

Several ethnic minorities had mastered some farming techniques. They grew rice plants in swamped paddy fields and carried out irrigation. Others went hunting, fishing, collecting, and lived a semi-nomadic life. Each group has its own culture, diverse and special. Beliefs and religions of the Vietnamese ethnic minority groups were also disparate from each other.

However, fundamental solidarity among ethnic groups has been established on top of this difference as a result of centuries-long cooperation on the soil of Vietnam. Right in the first century of history, a mutual supplement in the economic relationship between lowland people and mountainous people was formed. This solidarity had been unceasingly strengthened during wars of resistance for defending the country. Through the shared struggle for defending and building of the country and the mutual assistance for co-existence and development, a common community between the Viet people and other ethnic minority peoples had been established and continuously consolidated and developed.

Nonetheless, an evident gap in the material and moral life has indeed still existed between peoples living in the deltas and those living in mountain areas as well as among ethnic minorities themselves. The Vietnamese government has worked out specific policies and special treatments to help mountainous people catching up with lowland people, and made great efforts to develop and preserve traditional cultural identities of each ethnic minority group. At present, the programs of providing iodized salt for remote villages, equipping village's health care and hygienic station, fighting malaria, building free schools for ethnic minority children, settled agriculture and fixed residence, and projects of creating new writing scripts for minority peoples

and studying and developing a traditional culture of each ethnic minority group,... have obtained satisfactory results^{††}.

Religious groups

According to The United States Department of State- Report on International Religious Freedom - Vietnam (USSD-IRF 2016 report): ‘In total, the government has granted recognition to 38 religious organizations and one dharma practice (a set of spiritual practices) affiliated with 15 distinct religious traditions as defined by the government. The 15 religious traditions are Buddhism, Islam, Bahai, Catholicism, Protestantism, Mormonism, Hoa Hao Buddhism, Cao Dai, Buu Son Ky Huong, Tinh Do Cu Si Phat Hoi, Tu An Hieu Nghia, Phat Duong Nam Tong Minh Su Dao, Minh Ly Dao Tam Tong Mieu, Khmer Brahmanism, and Hieu Nghia Ta Lon Buddhism. Distinct denominations within these religious traditions must seek their registration and/or recognition.’ ‘Smaller religious groups that together comprise less than 0.2% of the population include a devotional form of Hinduism mostly practiced by 50,000 ethnic Cham in the south-central coastal area; approximately 100,000 Muslims, who are scattered throughout the country (approximately 40% are Sunnis; the remaining 60% practice Bani Islam); an estimated 8,000 members of the Bahia Faith; and approximately 1,000 members of The Church of Jesus Christ of Latter-day Saints (Mormons). Religious groups originating within the country (Buu Son Ky Huong, Tu An Hieu Nghia, To Tien Chinh Giao) and religious groups relatively new to the country (such as Brahmanism) comprise a total of 1.4%. A small, mostly foreign Jewish population exists in Hanoi and Ho Chi Minh City...^{‡‡}.

‘Ethnic minorities constitute approximately 14% of the population. Based on adherents’ estimates, two-thirds of Protestants are members of ethnic minorities, including groups in the Northwest Highlands (Hmong, Dzao, Thai, and others) and the Central Highlands (Ede, Jarai, Sedang, and M’nung, among others, including groups referred to as Montagnards or Degar). The Khmer Krom ethnic group overwhelmingly practices Theravada Buddhism.’^{§§}

^{††} <https://www.vietnamembassy.org.uk/population.html>

^{‡‡} <http://dfat.gov.au/about-us/publications/Documents/country-information-report-vietnam.pdf>. Accessed: 05 October 2020

^{§§} US State Department (USSD-IRF), ‘2016 Report on International Religious Freedom – Vietnam’, (Section I. Religious Demography), 15 August 2017,

1.2.2 Lifestyles and dietary restriction for culture and religion

Lifestyles, culture^{***}:

Vietnam is a multiethnic country with over fifty distinct groups. Each of its 54 ethnic groups has their own traditional cultural identities, language, lifestyle, beliefs and religions in various forms such as folk belief of worshiping ancestors and persons who made great contributions to the nation or the community, and religious beliefs.

Family is very strong in Vietnam. Family and clan (đòng họ) are valued over individualism. Clan is the most important social unit in the country and each clan features a patriarch heading the clan and a clan altar. Even today, in some parts of the country, the tradition of clan members living together in longhouses is quite prevalent. It is also not uncommon to see three to four generations of a family living together in the same house. Members of a clan are related by blood and often name their villages based on their clan names. Death commemorations of clan members are usually attended by all members of the clan and villagers.

Weddings in Vietnam earlier were arranged mainly by parents and people were married very young. However, things have changed so much in recent years since Vietnam Open the door to the World and tourism pick up in early of 90. Vietnamese youth enjoy greater freedom of choosing the time of their marriage and their partner. Weddings are still mostly held in the traditional manner with elaborate rituals and ceremonies. The date for Wedding was carefully selected by Feng Shui master or most respected man in the Clan.

The traditional funeral ceremony in Vietnam is also quite elaborate and long-stretched. The body of the dead person is cleaned with fragrant water and dressed carefully in the special clothes. A lot of mourning following and depends on each tribe and location, they have the slightly different ceremony. Later the body will be burying, the most popular method. Recently, some area, people choose cremation instead of burying. Only 1 case of remains in frozen condition and several cases of Monks body was kept inside the statues...

Vietnamese Cuisine: Vietnamese food is fresh and healthy and getting more and more popular all over the World. It exhibits great diversity but can be classified into three primary categories by locations: the north, south, and central regions of the country. Many types of noodles and noodle soups and all type of spring rolls are popular here. Less use of oil and greater use of fresh vegetables are preferred. Soy sauce, fish sauce, mint, and basil are popular ingredients. Rice is

<https://www.state.gov/j/drl/rls/irf/religiousfreedom/index.htm?year=2016&dliid=268780#wrap>
per.Accessed; 05 October 2020

^{***} <https://vietnamtravel.com/vietnamese-culture/>

the main food and eaten in 3 meals a day. The flavors of Vietnamese food range from spicy and sour to sweet. The Noodle Soup originating in North Vietnam is a noted Vietnamese dish and features rice noodles with beef, chicken, fish, sea food.... soup and scallions or bean sprouts as accompaniments. There is vegetarian noodle soup too.

Traditional costumes of Vietnam: The traditional dress of the Vietnamese people changed significantly from time to time and depended largely on the whims and fancies of the region's rulers

Religion of Vietnam: Ancestor worship is common in Vietnamese culture. Most Vietnamese, regardless of religious denomination, practice ancestor worship and have an ancestor altar at their home or business, a testament to the emphasis Vietnamese culture places on filial piety.

Festivals of Vietnam: Vietnam has many festivals. Vietnam celebrates several holidays, totally 14 days of holidays in a year including traditional holidays which have been celebrated in Vietnam for thousands of years, along with modern holidays imported predominantly from western countries. Among Vietnamese traditional holidays, the two most important and widely celebrated are the Lunar new year -TET, followed by the Mid-autumn lantern festival, although the latter has been losing ground in recent years.

Restriction for culture and religion:

Vietnamese people greet each other by joining hands and bowing slightly to each other. Hugging is reserved for relatives only. Women do not shake hands with each other or with men.

Fasting is most often used in Vietnamese culture when people are sick. When they're sick, many Vietnamese believe it's best to drink only hot water and eat thin rice gruel (rice and water with a little salt), to give their digestive systems a rest. Health care providers may want to make sure that sick patients are getting enough nutrition.

The only other time fasting is used in Vietnamese culture is for religious reasons. Vietnamese Buddhists – depending on how strict they are – may adhere to restrictions such as abstaining from meat on Wednesdays and Fridays, or even follow vegetarian diets. Strict Vietnamese Catholics will adhere to Catholic dietary rituals, such as those during Lent. Fasting among Vietnamese in America, however, is not common^{†††}.

1.3. Population

1.3.1. Current number of population, population transition, and population pyramid

Vietnam is experiencing rapid demographic and social change. The current population of Vietnam is 97,569,565, based on projections of the latest United Nations data (up from about

^{†††} <https://ethnomed.org/resource/nutrition-and-fasting-in-vietnamese-culture/>.

60 million in 1986) and is expected to expand to 120 million by 2050. Population rank is 15th over the world. Vietnam's population is increasing by about 1% each year, adding about 1 million people per year^{†††}. Population density is 293.89 persons/km²^{§§§}. This becomes the 46th most densely populated country on earth. Today, 70% of the population is under 35 years of age, with a life expectancy of 76 years (71.7 years for males and 79.9 years for females), the highest among countries in the region at similar income levels. But the population is rapidly aging. And Vietnam's emerging middle class, currently accounting for 13% of the population, is expected to reach 26% by 2026^{****}.

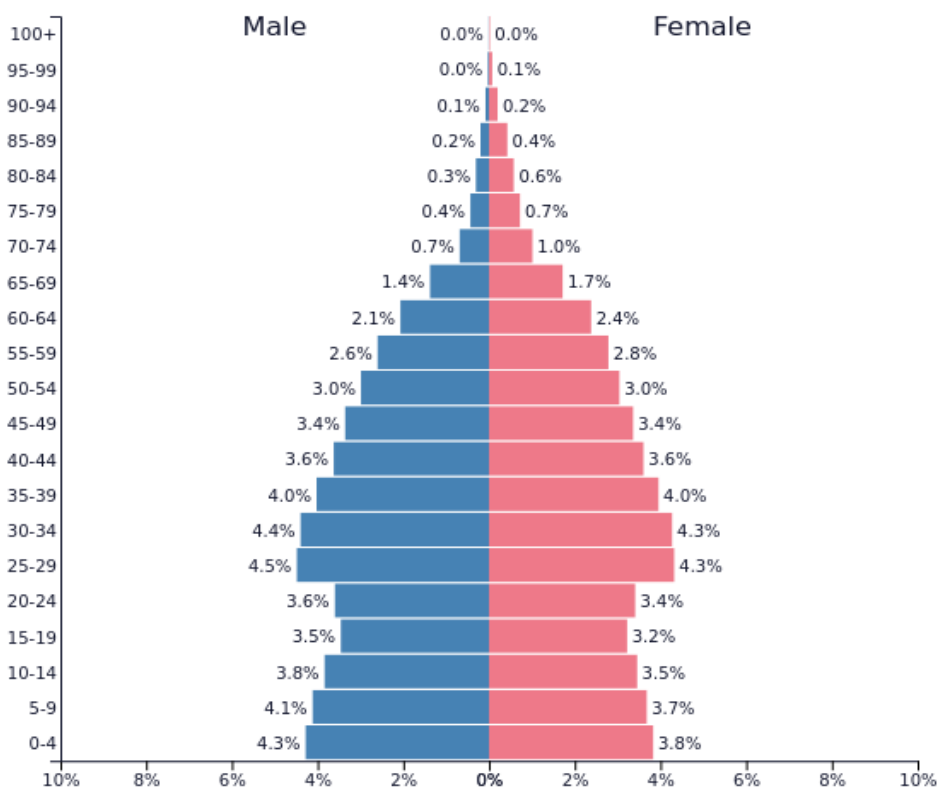


Fig. 1.1. Population Pyramid in 2020^{††††}

^{†††} <https://worldpopulationreview.com/countries/vietnam-population>. Accessed on 05 October 2020

^{§§§} <https://worldpopulationreview.com/countries/vietnam-population>. Accessed on 05 October 2020

^{****} <https://www.worldbank.org/en/country/vietnam/overview>. Accessed on 05 October 2020

^{††††} <https://www.populationpyramid.net/viet-nam/2020/>. Accessed on 05 October 2020

Currently, 37.0% of the population of Vietnam is urban. The population growth rate in urban areas is three times higher than that in rural areas, mainly due to the increasing migrant flows from rural to urban areas. The population aging index in Vietnam was 41.1%. The total fertility rate was 2.1 children per woman. Sex ratio at birth was 111.9 male birth per 100 female births. The infant mortality rate was 15.4 per 1,000 live birth. The death of children under 5 years old in Vietnam was 19.3 per 1,000 live births.

Alike many countries, Vietnam faces a dual trend that encompasses a still young population together with population aging, which may reflect the challenge of “getting old before getting rich”. Looking at the population structure by age group, from 2010 to 2020, the share of the population aged 0-14 decreased from 24.7% to 23.2%, aged 15 – 64 increased from 68.9% to 70.3%, and the share of the population aged 65+ remained small but increase from 6.8% to 7.9%^{††††}. Demographic transition is characterized by population decline and aging. Vietnam is currently in stage 3 of the Demographic Transition Model. The reasoning is that the birth rates are still in the process of decreasing and the death rates are very low. Vietnam may be missing a golden population which is estimated to last about 30 years from 2010 to 2040^{§§§§}.

1.3.2 Demography, literacy and other relevant information

Demography of Vietnam including population features (mentioned above), education level, health of population, economic status, religious affiliations and other aspects of population. Originating in northern Vietnam, the Vietnamese people pushed southward over two millennia to occupy the entire eastern seacoast of the Indochinese Peninsula. Ethnic Vietnamese, or Viet (known officially as Kinh), live in the lowlands and speak the Vietnamese language, as opposed to the many ethnic groups of Vietnam who also occupy the mountainous regions. The Kinh group does represent much of the cultural and political landscape of Vietnam^{*****}.

Regarding the education system, compulsory education lasts 10 years from age 5 to age 14. The illiterate population aged 15 – 24 years in 2018 was 223,705 (111,185 for male, and 112, 520 for female). Illiterate population aged above 15 years in 2018 was 3,669,981 (1,276,494 for male, and 2,393, 487 for female)^{†††††}.

^{††††} https://en.wikipedia.org/wiki/Demographics_of_Vietnam

^{§§§§} <https://e.vnexpress.net/news/news/vietnam-may-be-missing-out-on-golden-population-undp-3394794.html>

^{*****} https://en.wikipedia.org/wiki/Demographics_of_Vietnam

^{†††††} <http://uis.unesco.org/en/country/vn>

The statistic shows the total literacy rate of adults aged 15 to 35 in Vietnam from 2006 to 2018. In 2018, the literacy rate was approximately 94.8%.

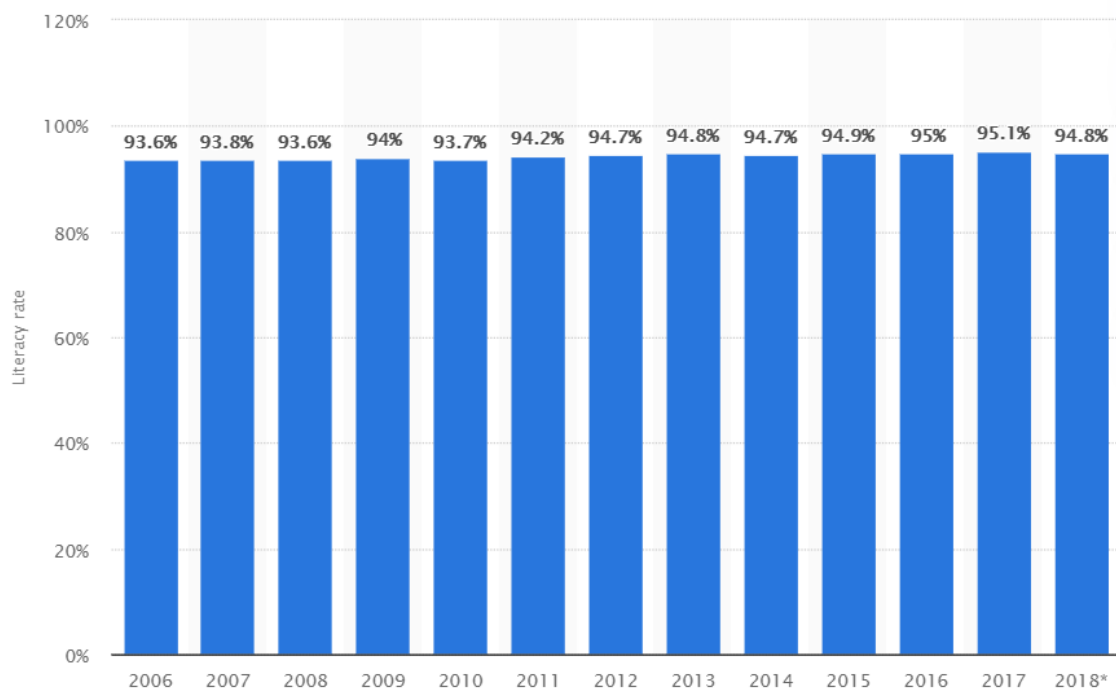


Fig. 1.2. Total literacy rate of adults aged 15 to 35 in Vietnam 2006 – 2018^{***}**

Between 2010 and 2020, the Human Capital Index for Vietnam increases from 0.66 to 0.69. A Vietnamese child born today will be 69% as productive when she or he grows up as she or he could be if she enjoyed complete education and full health. Vietnam’s HCI is the highest among middle-income countries, but there are some disparities within the country, especially for ethnic minorities. There is also a need to upgrade the skills of the workforce to create productive jobs on a large scale in the future.

Health outcomes have improved in tandem with rising living standards. From 1993 to 2017, the infant mortality rate decreased from 32.6 to 16.7 (per 1,000 live births). Between 1990 and 2016, life expectancy increased from 70.5 to 76.3 years and is the highest in the region for countries at a similar income level. Vietnam’s universal health coverage index is at 73-higher than the regional and global averages-with 87% of the population covered. However, the high and widening sex ratio at birth (115 in 2018) shows that fundamental gender discrimination persists.

***** <https://www.statista.com/statistics/1008115/vietnam-literacy-rate-of-adults/>

At the same time, Vietnam is one of the most rapidly aging countries and the 65+ age group is expected to increase 2.5 times by 2050^{§§§§§}.

Between 2002 and 2018, GDP per capita increased by 2.7 times, reaching over US\$2,700 in 2019, and more than 45 million people were lifted out of poverty. Poverty rates declined sharply from over 70% to below 6% (US\$3.2/day PPP). The vast majority of Vietnam's remaining poor (86%) – are ethnic minorities.

1.4. Politics and Policy

1.4.1 Current political system

The Socialist Republic of Vietnam is a law-governed state. The political system was established upon the birth of the Democratic Republic of Vietnam and comprises the 4 following organizations: The Communist Party of Vietnam, The State of the Socialist Republic of Vietnam, Vietnamese Fatherland Front, and other political organizations.

1. The Communist Party of Vietnam is the vanguard of the Vietnamese working class, the working people, and the whole nation; a loyal representative of the interests of the working class, the working people, and the whole nation. People in the political system: As the maker of history, the people constitute the decisive force in the process of social evolution and make up the current political system in Vietnam. All powers belong to the people and their powers are exercised through the State. The State regulates the society by-laws under the leadership of the Communist Party of Vietnam.

2. The State of the Socialist Republic of Vietnam is the central organization and the pillar of the political system that realizes the will and power of the people acts on behalf of the people and is accountable to the people for the management of all activities of the social life and in domestic and external affairs. The state system includes The National Assembly, The State President, The Government, The Apparatus Organization at the local level,

(1) The National Assembly is the highest-level representative body of the people; the highest organ of state power of the Socialist Republic of Vietnam; the National Assembly exercises three main functions: to legislate, to decide on important national issues, to exercise supreme supervision overall activities of the State. The State President is the Head of State, elected by the National Assembly from among its deputies to represent the Socialist Republic of Vietnam in domestic and foreign affairs. The President has twelve powers as provided by the Constitution, of which the most important are to declare the promulgation of the Constitution, laws, and

§§§§§ <https://www.worldbank.org/en/country/vietnam/overview>.

ordinances, to head all people's armed forces and assume the Chairmanship of the National Defense and Security Council, to recommend to the National Assembly the election, removal or dismissal of the Vice President, the Prime Minister, Chief Justice of the Supreme People's Court, and Head of the People's Procuracy. The National Assembly deputies must have close contact with the voters and fall under the supervision of the voters. The Chairman and the Vice-chairmen of the National Assembly are the deputies elected by the National Assembly at the first session of every tenure of the National Assembly. The Vice-chairmen of the National Assembly are the assistants of the Chairman following the distribution of work of the Chairman.

The Standing Committee of the National Assembly, the standing body between the two sessions of the National Assembly, has the right:- supervise the implementation of the Constitution, the law and the resolution of the National Assembly; the ordinance and the resolution of the Standing Committee of the National Assembly; to supervise the activities of the Government, the Supreme Court, and the Supreme Procuracy; to promulgate the ordinance, the explanations of the Constitution, the law and the ordinance.

Two councils of the National Assembly are: the Council of the National Defense-Security chaired by the State President; the Prime Minister is the Vice-Chairman and 4 members; the Council of Nationalities comprises a Chairman and 38 members.

The Functional Committee of the National Assembly comprises the Law Committee; the Committee of Economy and Budget; the National Defense-Security Committee; the Committee of Culture, Education of Youth, Adolescents and Children; the Committee of Social Issues; the Committee of Science, Technology, and Environment and the Committee of External Relations.

(2) The State President: is the head of the State, elected by the deputies of the National Assembly on behalf of the Socialist Republic of Vietnam in the internal and external relations aspects. The Constitution of the Socialist Republic of Vietnam clearly states that the State President has 12 rights and obligations, in which the most prominent rights and obligations are:

- To make public the Constitution, law, and ordinance.
- To command the people's armed forces and hold the post of Chairman of the Council of National Defense and Security.
- To propose the National Assembly to elect or remove from the post the Vice-President, the Prime Minister, the Chief Judge of the People's Supreme Court, the Head of the Supreme Procuracy.

Assistants of the State President are the Vice-President, the Council of National Defense and Security, and the Office of the State President.

The State Vice-President is proposed by the State President and elected by the deputies of the National Assembly; the State Vice-President helps the State President to carry out the tasks and possibly is delegated by the President to do certain tasks or to work as the acting President. The Council of the National Defense and Security is tasked to mobilize all the forces and capabilities of the country to defend the Fatherland. The Council led by the State President comprises the State Vice-President and the members introduced by the State President and approved by the National Assembly.

(3) *The Government* is the executive body of the National Assembly, the highest administrative body of the Socialist Republic of Vietnam. The Government has the same term of office as the National Assembly. The Government falls under the supervision of the National Assembly and is tasked to make reports to the National Assembly, the Standing Committee of the National Assembly, and the State President. The Government comprises the Prime Minister, the Deputy Prime Ministers, the Ministers and Heads of the Ministerial level agencies. The Prime Minister is introduced by the State President, elected and removed from the post by the National Assembly with a five-year term. The Deputy Prime Ministers are proposed by the Prime Minister and approved by the National Assembly. The Deputy Prime Ministers are the assistants of the Prime Minister and are delegated with the tasks when the Prime Minister is absent. The Ministers and Heads of the Ministerial level agencies are proposed by the Prime Minister and approved by the National Assembly. They undertake the State managerial functions for the sectors and fields assigned to them. The Government administers the implementation of the State's affairs in the fields of politics, economics, culture, society, national defense and security, and foreign relations; ensures the efficiency of the State apparatus from central to grassroots levels; assures that the Constitution and laws are respected and executed and guarantees the sustainability and improvement of the people's material and spiritual life. The Government consists of Prime Minister, who is a National Assembly deputy as provided by the Constitution, Deputy Prime Ministers, Ministers, and other members.

(4) *The apparatus organization at the local level******

The People's Council:

- The People's Council in provinces and cities under the Central Government.
- The People's Council in districts.
- The People's Council in cities under provinces, provincial capitals, and districts.
- The People's Council in communes, wards, and townships.

The People's Committee:

***** <http://vufo.org.vn/The-Political-System-in-Vietnam-09-197.html?lang=en>

- Provinces and corresponding levels: it comprises departments, committees, and other agencies under the People's Committee and the Office of the People's Committee.
- Districts and corresponding levels: it comprises departments and boards and other agencies under the People's Committee and the Office of the People's Committee.
- Communes and corresponding levels: the departments and offices.

3. Vietnamese Fatherland Front: The Vietnam Fatherland Front and its member organizations are the political basis of the people's administration. The Front promotes the tradition of the entire people's solidarity, intensifies the political and spiritual unanimity of views among the people, participates in building and consolidating the people's administration, to together with the State take care of and protect the legitimate interests of the people, encourage the people to exercise their rights to mastery, seriously implement the Constitution and the law, supervise the activities of the State agencies, the elected representatives and the State officials and employees. The State creates conditions for the Vietnam Fatherland Front and the member organizations to operate effectively.

4. Other Political Organizations: These are organizations representing the interests of different social communities participating in the political system with their principles, purposes, and features. There are currently major social-political organizations in Vietnam such as the Vietnam Confederation Trade Unions, Vietnamese Women's Union, Ho Chi Minh Communist Youth Union, and Veterans Association, and other professional organizations^{†††††}. These organizations play an important role in the national liberation cause. In the renovation and industrialization and modernization, these social organizations have been making an important contribution to bringing the policies of the Party and the Government of Vietnam into life.

1.4.2 Current political party and results of a recent election

The Party organizational system is established in line with the State administrative apparatus from Central level to provincial, city, district, and communal levels as well as in administrative bodies, schools, enterprises, political/social/professional organizations, army units, and police forces. The Party cells are the Party's grassroots foundations.

Article 4, Chapter I of the current Constitution, adopted by the National Assembly on April 15, 1992, defined the role of the CPV: "as the leading force of the State and the society."

"The Party's activities are governed by the Constitution and laws."

^{†††††} <http://vietnamembassy-usa.org/vietnam/politics>.

Being the party in power whose mission is to lead the country in all fields, the Party directs State and socio-political organizations through:

- Deciding on political programs, strategies, and guidelines for national construction and defense; carrying out the leadership through ideological work, personnel management, and supervision over the implementation of its political programs, guidelines, and strategies;
- Consistently directing the personnel work and managing the contingent of cadres, at the same time promoting the responsibilities of organizations in the political system and their leaders in charge of personnel work;
- Introducing competent cadres for posts in State agencies and socio-political organizations;
- All-Party cells and members working in the State agencies as well as socio-political organizations must strictly observe the Party's resolutions and directions; the Party cells direct the concretization of these documents into the State's laws and organizations' regulations as well as their implementation.

To consolidate its full leadership, the Party does not directly cover all activities but works through its affiliates, in line with the Constitution and laws:

- In the State leading agencies (National Assembly, People's Councils) and socio-political organizations at the central level and in provinces/centrally-administered cities which are formed through elections, Party committees set up Party bodies at the same level, composed of some Party members who work for the related organizations and some members appointed by the same-level Party committees. The role of the Party bodies is to lead and make other members of the organizations implement the guidelines and policies of the Party, increase the influence of the Party, improve the close relationship between the Party and the people, realize the Party's resolutions on organization and personnel management and decide matters of organization and personnel management in line with the duties assigned by the Politburo.
- In judicial and executive bodies (the government, ministries, courts, the inspection agency, etc.) at the central level and provinces/centrally-administered cities, Party committees set up the Party boards at the same level, which are composed of some Party members who work for the related bodies and some appointed by the same-level Party committees, including the secretaries. The role of the Party boards is to make other members of the bodies understand and implement the Party's guidelines and policies; give advice to the Party committees on operation, duties, organization, and personnel management; make a decision within their competence, and to observe the implementation of the Party's guidelines and policies.

- As for the security and armed forces, there are the central military committees and the security Party committees.

With those bodies, the Communist Party of Vietnam has a nationwide organizational system, from the Central to grassroots levels, and in political- social organizations and economic entities^{*****}.

1.4.3 Main national policy and political challenges

Vietnam has attained positive outcomes in implementing the ten-year socio-economic development strategy in the 2011 - 2020 period and the five-year socio-economic development plan in the 2016 - 2020 period. The macro-economy was more stable. Big balances were ensured and improved. Economic growth was positive. Growth quality was improved. Strategic breakthroughs attained initial outcomes. The economy was restructured in combination with the positive transformation of the growth modal. Scale, potentials, and competitiveness of the economy were on the rise. Social security was ensured. However, despite encouraging developments, the economy has yet fully tapped its potential and advantages. There are a large number of difficulties and limitations including low productivity, efficiency, and competitiveness. The investment and business environment still has shortcomings. Strategic breakthroughs and the transformation of the growth models have yet made a big leap forward. The gap between the rich and poor was widening. A proportion of people coped with difficulties. Currently, Vietnam is preparing to conduct the 13th National Congress of the Communist Party with a strong belief and great hope of the people in a new stage of development but also sets forth great responsibilities for policymakers. At the Congress, the National Socio-Economic Development Strategy for the period 2021-2030 and the Five-year Socio-Economic Development Direction for the 2021-2025 period will be approved, serving as a guideline for the utmost important development period of the country in the next 5-10 years. This will be a critical period to bring Vietnam from a developing country with the current low middle income to a modern industrial country with high middle income by 2030 and then to become a developed country with high income in 2045^{§§§§§§}. The strategy and the plan are expected to set ambitious development goals consistent with the country's remarkable position achieved in recent years. Especially, 2021 would be the first year, Vietnam implements the ten-year economic

<http://www.chinhphu.vn/portal/page/portal/English/TheSocialistRepublicOfVietnam/AboutVietnam/AboutVietnamDetail?categoryId=10000103&articleId=10001578>. Accessed on 05 October 2020

§§§§§§ <http://www.mpi.gov.vn/en/Pages/tinbai.aspx?idTin=47821&idcm=133>

development strategy (2021-2030) and the five-year socio-economic development plan (2021-2025). Key preset goals for 2021 included a GDP growth rate of 7%, a growth pace of domestic budget collection of 9-11%; a growth rate of trade revenue collection of 4-6%*****. The general targets of the National Socio-Economic Development Strategy for the period 2021-2030 are††††††: “By 2030, being a developing country with modern industries and high average income; modern, competitive, effective and effective management institutions; the economy develops dynamically, quickly and sustainably, independently and autonomously based on science and technology, innovating in association with improving efficiency in foreign affairs and international integration; arouse aspirations for national development, promote the nation's creativity, will build a democratic, fair, civilized discipline, safety society, and ensure happy life of the people; constantly improving the people's lives in all aspects; firmly protect the Fatherland, a peaceful and stable environment for national development; improving the position and prestige of Vietnam in the international arena. Strive to become a developed country with high income by 2045”.

There are 16 specific goals as follows:

- **7 economic goals**

- (1) The growth rate of gross domestic product (GDP) is about 7% / year on average; GDP per capita at current prices by 2030 will reach about 7,500 USD / person.
- (2) The proportion of the processing and manufacturing industry will reach about 30% of GDP, the digital economy will reach about 30% of GDP.
- (3) The urbanization rate will reach over 50%.
- (4) The average total social investment reaches 33-35% of GDP; public debt does not exceed 60% of GDP.
- (5) The contribution of total factor productivity (TFP) to growth reached 50%.
- (6) The social labor productivity growth rate is over 6.5% / year.
- (7) Reducing energy consumption per unit of GDP by 1 - 1.5% / year.

- **4 social goals**

- (8) The human development index (HDI) reaches over 0.7.
- (9) Average life expectancy reaches 75 years, in which the minimum life expectancy reaches 68 years.
- (10) The rate of trained workers with degrees and certificates reaches 35-40%.

***** <http://news.chinhphu.vn/Home/Building-socioeconomic-development-norms-for-2021/20207/40964.vgp>

†††††† <http://cand.com.vn/thoi-su/Phan-thu-hai-Chien-luoc-phat-trien-Kinh-te-xa-hoi-2021-2030-616525/>

(11) Labor working in the agricultural sector decreases to less than 20% of the total labor force of the economy.

• **6 environmental goals**

(12) The forest coverage rate is stable at 42 - 43%.

(13) The rate of wastewater treatment and reuse into the river basin environment is over 70%.

(14) Reduce at least 8% of greenhouse gas emissions.

(15) 100% of production and business establishments meet environmental standards.

(16) Increase the area of marine and coastal protected areas to 3-5% of the national marine area.

As a responsible member country of the United Nations, Vietnam has been actively participating in the implementation of the global sustainable development agendas. In the context of Vietnam, the Sustainable Development Goals (SDGs) were nationalized in the National Action Plan to implement the 2030 Agenda for SDGs.

The 2030 Agenda and the Sustainable Development Goals (SDGs) are in line with the long-term development strategy of Vietnam^{*****}.

To date, Vietnam is proud to have achieved several SDG-related results, including:

(1) A substantial reduction in the national multi-dimensional poverty rate from 9.9% in 2015 to less than 7% in 2017;

(2) A decrease in the under-5 mortality rate from 22.1 in 2015 to 21.6 in 2017 per 1000 live births; Health insurance coverage reaching 86.4% in 2017;

(3) A primary net enrolment rate of 99.0% and a primary completion rate of 99.7% for the school year 2016-2017;

(4) Gradually making gender equality a cross-cutting issue in all political, economic, cultural, and social spheres with remarkable results such as women's representation in the National Assembly in the 2016-2021 term reaching 26.7%; and, the year 2017 recorded 12 out of 30 government ministries and agencies with female leaders holding minister and deputy-minister positions ;

(5) The proportion of households having access to safe water reaching 93.4 % in 2016;

(6) Access to electricity by more than 99% of Vietnamese households in 2016;

(7) Internet use reaching 54.2% or 50 million people in 2016;

(8) Annual GDP growth rates at 6.7, 6.2, and 6.8% for 2015, 2016, and 2017 respectively;

***** https://sustainabledevelopment.un.org/content/documents/19967VNR_of_Viet_Nam.pdf

- (9) Improvements in the protection and management of the environment and natural resources and an increase in forest cover to 41.5% in 2017;
- (10) A reduction in inequality and an improvement in the promotion of access to justice and information;
- (11) Vietnam's deeper and more comprehensive international integration and enhanced international position; and
- (12) Important steps are taken to support the youth in realizing their full potential as key partners in achieving the SDGs.

The sustainable development principles have been thoroughly mainstreamed into the 2011-2020 Social and Economic Development Strategy (SEDS) and the 2016-2020 Social and Economic Development Plan (SEDP). In the coming years, the SDGs will be fully and further integrated into Vietnam's 2021-2030 SEDS and 2021-2025 SEDP.

Vietnam has had fast and stable economic growth in recent years, but rapid changes have also transformed its society and culture in the process. Besides achievements, various changes have been made to Vietnam's economic and social policies such as a friendly attitude toward foreign investment, tax incentives and structures, international cooperation, administrative reform, and employment forms. While Vietnam's poverty reduction has lifted millions of people out of extreme destitution and has dramatically improved the standard of living, some social issues have also arisen due to either the modernization and urbanization process or economic transformation. Particularly, in the 2021-2025 periods, the domestic economy would cope with numerous challenges including social issues, the aging population, the gap between rich and poor, natural disasters, diseases, climate change, seawater rise, and saltwater intrusion^{§§§§§§}.

Here is the list of socio-economic issues that Vietnam is currently facing^{*****}:

1. **An aging population:** As the age structure alters, the Vietnamese economy also needs to adapt to respond to a declining labor participation rate, increasing costs of healthcare and related services for the elderly, shifting growth driving force, and generational gaps in the workplace. Moreover, the country's social security fund has already warned of going bankrupt, and the government plans to increase the retirement age to 62 years old for men and 60 years old for women by 2021.

^{§§§§§§} <http://news.chinhphu.vn/Home/Building-socioeconomic-development-norms-for-2021/20207/40964.vgp>
^{*****} <https://soapboxie.com/world-politics/Vietnams-Current-Social-Issues>. Accessed on 15 October 2020

2. Economic inequality: according to the Asian Development Bank, 7% of the country's population lived below the national poverty line, and 2.6% lived below \$1.9 per day. The problem of income inequality is further complicated by the low level of economic mobility among various disadvantaged groups in Vietnam. For instance, minority people living in rural and mountainous areas have limited access to education, poorer infrastructure, and slimmer opportunities to move up the income bracket. Similarly, due to Vietnam's long-lasting patriarchy, women frequently receive lower wages and slimmer chances of promotion at work.

3. Brain Drain: It was estimated that more than 2.7 million Vietnamese people lived abroad with more than 1.4 million people living in the United States, 240 thousand living in Australia, and elsewhere around the globe in 2017. Compared to 1990, only 1.2 million people born in Vietnam lived abroad. Although migration is the inevitable result of globalization and Vietnam's increased integration into the world economy, the concern is that Vietnam is losing its most talented and brightest people to other countries. Furthermore, many Vietnamese students and young scholars who go abroad to pursue their education faced the dilemma of staying in the host country or returning to Vietnam after earning their degrees.

4. Public Debt: Vietnam's public debt to GDP ratio has consistently grown over the past 10 years, amounting to 61.8% in 2017. In economic discipline, a high public debt relative to earnings can raise red flags. For example, high public debt can necessitate tax hikes, burdening companies, and reducing the propensity to invest, divert capitals and resources from more productive and beneficial economic activities, and slow economic growth. Besides, if a nation borrows too much debt from foreign countries, it becomes dependent on the foreign countries' economies. Thus, any changes in other countries' policies or currencies can have a direct impact on the debtor nation. From 2001 to 2015, Vietnam's foreign debts increased five times, borrowing mainly from the World Bank, Japan, and the Asia Development Bank.

5. Corruption: Corruption is not news in Vietnam. According to Transparency International in 2017, the country was among the poorest performing countries in terms of transparency, ranking 107 among 180 nations with a score of 35 out of 100. According to the 2017 Provincial Competitiveness Index compiled by VCCI Vietnam in collaboration with USAID, 53% of companies surveyed stated that they had to make unofficial payments for customs procedures. Corruption is prevalent in all sectors in Vietnam in the form of bribery, gifts, facilitation payments, and political interference. The weak rules of law, bureaucracy, and ambiguous legal framework made it even harder to bring the perpetrators to justice. Since 2017, in an unprecedented bid to curb corruption and cleanse the ruling Communist Party, General Secretary Nguyen Phu Trong has launched a national anti-corruption campaign to investigate high-profile cases of corruption, unveiling the extent and severity of corruption

among Vietnam's corporate and political elite. Although the success of the campaign is hard to evaluate, many people hope that it can set a precedent and serve as a warning to would-be offenders.

6. Pollution: Vietnam's ambitious infrastructure projects to expand its industrial parks, build more entertainment facilities, hotels, and resorts at exotic locations such as on the mountains or in the forests, and turn agricultural farmland into urban areas place a strain on its ecosystem, destroying many forests, and depleting its natural resources. Without a long-term development strategy with an emphasis on sustainability, the state of pollution in Vietnam is likely to become worse. Water pollution, air pollution is also an issue, especially in Vietnam's big cities.

7. Unsafe food: Food safety is one of the biggest and the most common concerns among Vietnamese people, rich or poor alike. According to the statistics of the Vietnamese Food Safety Agency, in 2017, there were 139 mass food poisoning outbreaks, affecting 3,869 people with 24 fatalities. Many food producers and farmers are found guilty of using pesticides, antibiotics, and other hazardous chemicals for quicker fruit ripening or leaner meat.

In addition to the above-mentioned issues, there exist many other problems, such as competing values among generations, political apathy among young people, human rights issues, education reforms,... Especially, the Covid-19 pandemic has seriously and heavily impacted all aspects of the global economic and social life, posing great challenges to Vietnam but it also brings new development opportunities. The Covid-19 has affected all industries, especially services, transportation, tourism, catering, and accommodation. Many businesses were forced to scale down their production or suspend their production. A series of employees have lost jobs and becoming underemployed. Their income is deeply reduced, making it difficult to ensure social security and stability. Vietnam has great economic openness and trade exchange, therefore, is suffering great losses from the pandemic. However, under the leadership of the Party and upholding the will and spirit of the nation, the Government and People of Vietnam have joined forces, being creating and endeavored to realize the "dual goal", both fiercely "fighting against epidemics such as fighting the enemy", and determined to maintain and restore production, to develop the economy, and to ensure people's lives so that "no one will be left behind."^{††††††††}. However, besides proud achievements, it is forecasted that Vietnam will still face significant difficulties and challenges in the coming time. The Covid-19 pandemic is still developing in a very complicated manner, creating great socio-economic and political instability around the

^{††††††††} <http://www.mpi.gov.vn/en/Pages/tinbai.aspx?idTin=47821&idcm=133>

world. It is expected that the world economic recovery will be slow, while trade tensions, protectionism, and political upheaval continue to increase and have a direct impact on a highly open economy like Vietnam. Also, Vietnam is still encountering the internal limitations and weaknesses of a developing economy with low middle income. Its economic growth remains dependent on capital, cheap labor, and the FDI sector. Therefore, in the medium and long term, overcoming the middle-income trap, narrowing the development gap with other countries, addressing environmental challenges, and building an independent and autonomous economy are the major development tasks posed for Vietnam. In the short term, the problem is that it is necessary to quickly restore economic growth, ensure social security, and make effective use of development opportunities that have emerged since the Covid-19 pandemic broke out.

1.5. Constitution and General Law System

1.5.1 Summary of the constitution

The current constitution was adopted by the 13th National Assembly in 2013. The 2013 Constitution is the fundamental legal document of the highest legal jurisdiction that institutionalizes basic viewpoints of the Communist Party of Vietnam on economic and political reforms, socialist goals, socialist democracy, and citizens' freedom rights. The Constitution indicates that the state power is in the hand of the people. The State is of the people, by the people, and for the people. The State ensures and constantly promotes the people's right to mastery in all fields and implements the policy of equality, unity, and mutual assistance among ethnic groups. The people use state power through the National Assembly and people's councils. These agencies are elected by the people, representing their will and aspiration.

The Constitution endows all citizens (men or women alike) with equal rights in all political, economic, cultural, and social areas as well as in family affairs, the right to freedom of belief and religion, the right to follow or not to follow any religion, the right to freedom of movement and residence within Vietnam, the right to go abroad and return home as stipulated by-laws, etc.*****.

The Constitution contains 11 chapters and 120 Articles.

Preamble

Chapter I - The Political Regime

Chapter II - Human Rights, Fundamental Rights and Duties of Citizens

Chapter III - Economic, Social, Cultural, Education, Science, Technology and Environment

***** <http://vietnamembassy-usa.org/vietnam/politics>.

Chapter IV - National Defense

Chapter V - National Assembly

Chapter VI - National President

Chapter VII - The Government

Chapter VIII - The People's Councils and the People's Committees

Chapter IX - Local Governments

Chapter X - Constitutional Council, National Council Election, State Audit

Chapter XI - Effect of the Constitution and the Constitutional Amendments

1.5.2 Summary of general law system

Since Vietnam's independence on September 30, 1945, the country has developed a socialist legal system based on the civil law system, with some major modifications from Marxist-Leninist ideology. The current legal system of Vietnam has the following characteristics:

- The legislation is the most important source of law;
- Courts are subordinate to the legislature and must make decisions based on legislation; and
- Policies are set out by the Communist Party, the only political party in Vietnam, which can lead to changes in legislation in the future.

The legal system is a general concept including two aspects, namely: the system of law structure and legislation system (legal source system)

Under the perspective of human right, the law of Vietnam is divided into the following groups:

- Law on civil and political rights
- Laws on social, economic, and cultural rights
- Laws on disadvantaged social groups such as women, children, old people, ...
- Laws in the judicial field which is easily violated

Vietnam participates in international treaties on human rights leading to national obligations, including ensuring the compatibility of national legislation with international human rights.

The structure system of law in Vietnam includes three basic elements:

- Delegated legislation (the basic unit in structure system)
- Legal institutions (set of legislation with same features)
- Laws (set of delegated legislation with the same features to adjust social relations in certain social fields).

There are 12 legal subjects in Vietnam:

1. Constitutional law

2. Administrative law
3. Financial law
4. Banking law
5. Property law
6. Civil law
7. Labor law
8. Marriage and family law
9. Criminal law
10. Criminal procedure law
11. Civil procedure law
12. Economic law

The system of legal documents in Vietnamese law consists of:

- Constitution is enacted by the National Assembly of Vietnam
- Laws or Codes are approved by the assembly and signed to issue by the President. These include several Codes, such as the Civil Code, Criminal Code, Civil Procedure Code, Criminal Procedure Code, Labor Code, and Maritime Code.
- Bylaws include:
 1. Resolution by the National Assembly
 2. Ordinance Resolution by Standing Committee of National Assembly
 3. Orders and Decisions by President
 4. Decrees and Decisions by Government
 5. Decisions by Prime Minister
 6. Resolution by the Judicial Council of the Supreme People's Court
 7. Circulars by Chief Justice of the Supreme People's Court
 8. Circulars by Chief Procurator of the Supreme People's Court
 9. Circular by Ministers, heads of ministerial-level agencies
 10. Decisions by State Auditor General
 11. Joint Resolution between Standing Committee of the National Assembly or between the Government and central agencies of political – society organizations
 12. Joint Circular between the Chief Justice of the Supreme People's Court and the Chief Procurator of the Supreme People's Court; between ministers, heads of ministerial-level agencies and Chief Justice of the Supreme People's Court, Chief Procurator of the Supreme People's Court; between ministers and heads of ministerial-level agencies
 13. Legal documents of the People's Council and People's Committee
 14. Resolution by People's Council

15. Directives and Decisions by People's Committee

1.6. Industry and Economy

1.6.1 Major industry

Major industries in Vietnam are food processing, garments, textiles, shoes, machine-building; mining, coal, steel; cement, chemical fertilizer, glass, tires, oil, and mobile phones. Some of the biggest industries in Vietnam include:§§§§§§§§

- (1) **Electronic:** Vietnam has invested in the manufacture of electronics which has seen that sector contribute 24% of the country's GDP
- (2) **Food Processing Industry:** Vietnam is a food processing hub that tries to meet the high demand for processed food from both local and international markets. The food industry is dominated by agricultural and sea products that are canned and shipped overseas, the sector accounts for 40% of Vietnam's export and directly contributes 15% of the GDP. The abundance of raw materials has catapulted the country to the top of the charts in the export of rice, coffee, and cashew nuts among other food products.
- (3) **Construction:** The construction industry has directly contributed 39% of the GDP, and this is mainly due to the massive support from the government that has formulated laws that are favorable to the sector.
- (4) **Mining industry:** Mining is a significant contributor to the economy with statistics showing that it directly adds 8.1% to the GDP. Vietnam is home to more than 5000 deposits of minerals that include rare metals that are in high demand around the world. The country has 7% of the world's bauxite reserves as well as tungsten, titanium, phosphate, coal, and iron ore. As of 2015, Vietnam became the 3rd largest mineral producer in South East Asia with some projects in the pipeline to push it to the apex of the global mineral trade. One sector that has greatly benefited in the mining sector is the steel industry which is projected to grow further in the coming years with plans already in motion to set up a plant that will be rolling out 2 million tons of steel every year.
- (5) **Service and Tourism:** The service industry in Vietnam accounts for 38.2% of the country's GDP. In the period between 1994 and 2004, the contribution to the GDP by the service sector averaged about 6%. Tourism plays a significant role in the economy of Vietnam and in 2012 the country received approximately 6.8 million visitors from different countries around the world. The number grew to more than 7

§§§§§§§§ <https://www.worldatlas.com/articles/top-biggest-industries-in-vietnam.html>

million in 2013. Vietnam has emerged as an attractive destination for tourists from different parts of the world, and according to the trip advisor, the top 25 destinations in Asia included major cities in Vietnam such as Halong, Hoi-an, and Ho Chi Minh City. In 2016, Vietnam attained a record of 10 million visitors from around the world, which represents a 26% increase from the previous year. Vietnam has now become the most favorable tourist destination in South East Asia. Many international and local tour operators in the country offer tours to ethnic minority groups, photography tours, bicycles, and walking tours, kayaking trips, and multi-country trips, especially with the neighboring countries of Laos, Cambodia, and Thailand. Tourists from foreign countries can travel freely in Vietnam as this was made possible by 1997. The country's economy has transitioned from an agrarian-based to almost a modern service-based economy, and more than a third of the GDP is generated by the service sector which includes transportation and hotel and catering industry.

1.6.2 Economic status and employment science

Economic status:

Vietnam's economy is based on large state-owned industries such as textiles, food, furniture, plastics, and paper as well as tourism and telecommunications. Agriculture represents 14.7% of GDP and employs 39.4% of the total workforce. Main crops include rice, coffee, cashew nuts, corn, pepper, sweet potatoes, peanuts, cotton, rubber, and tea as well as aquaculture. While agricultural trade surplus edged up on the year in 2019, the livestock industry continued to suffer from various diseases, including swine flu.

The industry contributes 34.2% of GDP and employs 25.8% of the total workforce. The energy sector has boomed in recent years (coal, hydrocarbons, electricity, cement, steel industry). Despite being a 'newcomer' in the oil industry, Vietnam has become the third-largest Southeast Asian producer. The country has also invested in high value-added industries such as cars, electronics, and computer technologies (software). Manufacturing rose by 10.9% year-on-year in 2019, contributing a record industrial trade surplus of over USD 10 billion (Vietnamese government).

Services represent 45.5% of GDP and employ 34.7% of the total workforce. The main services include tourism and telecommunications. Double-digit growth is expected from the Vietnamese retail sector from 2019 to 2024.

Breakdown of Economic Activity By Sector	Agriculture	Industry	Services
Employment by Sector (<i>in % of Total Employment</i>)	39.4	25.8	34.7
Value Added (<i>in % of GDP</i>)	14.7	34.2	45.5
Value Added (<i>Annual % Change</i>)	3.8	8.9	7.0

*Source: World Bank, Latest Available Data. Because of rounding, the sum of the percentages may be smaller/greater than 100%******

Vietnam is one of the fastest-growing countries in the world and its economy has shown resilience to trade wars and slower growth rates in neighboring China. This accelerated economic pace is due to labor shifting from agriculture to manufacturing and services, private investment, a strong tourist sector, higher wages, and accelerating urbanization. Exports constitute an increasingly significant contribution to Vietnam's GDP and certain sectors, such as industrial production, textile, electronics, and seafood production have been growing rapidly. Growth was expected to reach 7% in 2019, down from a 10-year high of 7.1% a year earlier. According to the updated International Monetary Fund (IMF) forecasts from 14th April 2020, due to the outbreak of the COVID-19, GDP growth is expected to fall to 2.7% in 2020 and pick up to 7% in 2021, subject to the post-pandemic global economic recovery.

According to the IMF, government debt reached 54.3% of GDP in 2019, down from 55.6% a year earlier, and is expected to edge down further to 53.3% in 2020 and 52.5% in 2021. This is a result of tightening monetary policies and limits on new government guarantees. Inflation dropped to 2.8% from 3.5% in 2018 and is forecast to average 3.2% in 2020 and 3.9% in 2021 by the latest World Economic Outlook of the IMF (April 2020). However, this was 0.2% lower than the Washington-based bank's previous estimate. Diversified trade structure, rising wages, and domestic consumption are the backbones of the Vietnamese economic growth. Nonetheless, labor costs remain competitive, which helps attract foreign investments to the country. Economic

***** <https://www.nordeatrade.com/fi/explore-new-market/vietnam/economical-context>

challenges include lack of infrastructure, business climate shortcomings, pending public sector reforms, growing inequality, a weak banking system. Tax reforms and privatization of state-owned companies helped compensate for the budget deficit in 2019. Around 40% of Vietnam's debt has medium or long-term maturity, a significant risk considering 40% of said debt is denominated in foreign currencies and represents a currency risk. Nonetheless, public authorities continue to intervene in both directions to keep the Dong within a narrow band against major international currencies and accrue foreign reserves.

The unemployment rate in Vietnam is particularly low. It reached 2.2% in 2019 and it is expected to remain stable in the following years. Social challenges include poverty reduction, improving higher education, and allowing freedom of the press. Transparency International ranks Vietnam as 96th out of 180 countries in its Corruption Perceptions Index 2019, a significant improvement from the 117th spot a year earlier^{††††††††}.

Indicators	2017	2018	2019 (e)	2020 (e)	2021 (e)
GDP (billions USD)	220.38	241.27e	261.64	284.85	308.63
GDP (Constant Prices, Annual % Change)	6.8	7.1	7.0	2.7	7.0
GDP per Capita (USD)	2,353e	2,551e	2,740	2,955	3,172
General Government Gross Debt (in % of GDP)	58.2	55.6e	54.3	53.3	52.5
Inflation Rate (%)	3.5	3.5	2.8	3.2	3.9
Unemployment Rate (% of the Labour Force)	2.2	2.2	2.2	0.0	0.0
Current Account (billions USD)	4.68	5.84e	5.73	5.44	5.27
Current Account (in % of GDP)	2.1	1.9	4.0	0.7	1.0

Source: IMF – World Economic Outlook Database, 2016

^{††††††††} <https://www.nordeatrade.com/fi/explore-new-market/vietnam/economical-context>

Note 1: (e) Estimated Data

Note 2: The following indicators were updated by the IMF in April 2020: GDP (Constant Prices, Annual % Change), Inflation Rate (%), Unemployment Rate (% of the Labour Force) and Current Account (in % of GDP); the rest of the indicators were last updated in October 2019.

Note 3: The indicator GDP (Constant Prices, Annual % Change) was updated by the IMF in June 2020.

Employment trend:

Labour supply: Workforce between the ages of 15 and 39 years currently accounts for nearly half of the total labor force in Vietnam. The share of trained workers of working age in 2017 was estimated at 21.5 percent, higher than 20.6 percent in 2016. *In 2017, the number of employed laborers in Vietnam was 53.7 million.* Employed laborers in agriculture, forestry, fishery decreased from 22.3 million in 2016 to 21.6 million in 2017, while industry and construction saw an increase from 13.2 million in 2016 to 13.8 million in 2017. Services also witnessed growth from 17.8 million in 2016 to 18.3 million in 2017.

Urban areas accounted for around 32 percent of the employed laborers, while the rest were employed in rural areas. Male employees accounted for slightly more than half of the Vietnamese workforce.

In 2017, unemployment in the working-age group stood at 2.24 %, of which rates for urban and rural were 3.18 and 1.78 %, respectively. Underemployment of working-age workers stood at 1.63 percent, of which rates for urban and rural areas were 0.85 and 2.07 %.

The Vietnam labor market is characterized by a high share of informal employment in total employment. Informal employment includes all informal jobs, whether carried out in informal sector enterprises, informal sector enterprises, or households. It is mainly characterized by unstable employment, low incomes, no labor contracts, and limited social protection benefits^{*****}. The rate of workers in informal employment tends to increase over time (31.9% in 2014 to 33.8% in 2016).

Labour force distribution: According to the government's 2017 labor force survey, 67.8 percent of the labor force residing in the rural areas. The Red River Delta and North Central along with the South Central Coast account for the largest share in the labor force at 21.7 and 21.6 percent respectively. Mekong River Delta and Southeast follow at 18.9 and 17.1 percent respectively.

***** ILO/GSO report "2016 report on informal employment in Vietnam"

The average national labor force participation stood at 76.9 percent. The highest rates are in the Northern Midlands and Mountains and the Central Highlands at 84.9 and 83.3 percent respectively. Areas with the lowest participation rates were the Red River Delta and Southeast. Sector-wise, the majority of the labor force in agriculture, forestry, and fishery reside in the Northern Midlands and Mountains, Central Highlands, and the Mekong River Delta. As for the industry and construction sector, the majority reside in the Southeast (Ho Chi Minh City) and the Red River Delta (Hanoi). Also, Ho Chi Minh City, Hanoi, and Mekong River Delta account for the majority of the labor force in services.

Improvements and Trends:

- The rate of waged workers increased over time;
- The proportion of vulnerable employment (own-account workers and contributing family workers) decreased.
- The labor share market for informal employment has also increased
- The rate of manual workers has reduced rapidly since 2013. The proportion of workers with a technical professional working in agriculture, forestry, and fishery tends to decrease; otherwise, the rate of workers in occupations requiring technical professions tend to increase, particularly for machinery assemblers and operators, and a higher level of technical professions.
- Workers with a university degree or higher qualifications levels tend to become more important in Vietnam.
- Employment shifts by economic sectors reflect the structural transformation of the economy. Particularly, the number of workers in agriculture, forestry, and fishery fall, together with the number of workers in the industry, construction, and services increased over time.
- One of the main drivers behind labor shifting by sectors comes from the application of science and technology advancements in various economic sectors. Moreover, climate change also has major impacts on employment across economic sectors as the country is particularly vulnerable to the effects of environmental issues.
- The average monthly income of waged workers in all three sectors including the public sector, non-state sector, and FDI sector increased from 2012 to 2017^{§§§§§§§§§§}

§§§§§§§§§§

https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-hanoi/documents/publication/wcms_626102.pdf

Challenges: The major challenges facing the labor market in Vietnam include a lack of skilled labor, the impact of industry 4.0, and the need for labor reforms due to the upcoming free trade agreements.

1.7. Labor-Management Relations, Contractors, Information Sector Workers, and Migrants

1.7.1 Labor dispute and other labor-management relations

A labor dispute means a dispute [or disagreement] over rights, obligations, and benefits arising between parties in an employment relationship.

- Labor disputes comprise individual labor disputes between an employee and employer, and collective labor disputes between the labor collective and the employer.

- Labor dispute in Vietnam is resolved by the following steps: 1). Negotiation; 2). Reconciliation; 3). Court's judgment.

1.7.1.1. Labor dispute resolution by negotiation in Vietnam:

- Vietnamese labor laws respect for and guarantee the principle that the parties engage in direct negotiation and reach their own decision on settlement of the labor dispute.

- Resolution of a labor dispute must, first and foremost, be based on direct negotiation between the two parties aimed at reaching a harmonious solution of the interests of the two parties to the dispute, stabilizing production and business, and ensuring social order and safety.

1.7.1.2. Labor dispute resolution by reconciliation in Vietnam:

a/ Principles for the resolution of labor disputes in Vietnam

- Ensuring conciliation and arbitration are held based on mutual respect of the rights and benefits of the two disputing parties, respect of general social interests, and compliance with the law.

- Ensuring the participation of representatives of the parties during the process of resolution of the labor dispute.

- A labor dispute shall be resolved by an agency, organization, or individual authorized to conduct labor dispute resolution if one of the two parties files a petition [for resolution] because the other refused to negotiate, if the negotiation was conducted but was unsuccessful, or if the negotiation was successful but a party failed to implement [the agreement reached].

b/. Conciliation of individual labor disputes in Vietnam:

An individual labor dispute must pass through procedures for conciliation by a labor conciliator before a petition to a court to resolve the dispute, except for the following labor disputes for which it is not mandatory to conduct conciliation procedures:

- A dispute relating to the disciplinary measure of dismissal for breach of the law on labor, or a dispute arising from unilateral termination of a labor contract;
- A dispute relating to the payment of compensation for loss and damage, or payment of allowances upon the termination of a labor contract;
- A dispute between a domestic servant and the employer;
- A dispute relating to social insurance by the law on social insurance, or health insurance following the law on health insurance;
- A dispute relating to the payment of compensation for loss and damage between an employee and an enterprise or professional entity sending a worker to work overseas according to a contract.

A conciliator must terminate the conciliation within five (5) working days from the date of receipt of the request for conciliation.

The two disputing parties must be present at a conciliation session but may appoint authorized representatives to participate at the conciliation session [on their behalf].

The labor conciliator is responsible to guide the parties in their negotiations, and if the two parties settle then the labor conciliator shall prepare minutes of settlement.

If the two parties do not settle, the labor conciliator shall provide a settlement proposal for consideration by the two parties. If the two parties agree to the settlement proposal, then the labor conciliator shall prepare minutes of successful conciliation.

If the two parties to the dispute fail to agree on the settlement proposal, or if one of the parties has been validly summonsed twice but is still absent without a legitimate reason, then the labor conciliator shall prepare minutes of unsuccessful conciliation.

The minutes shall be signed by the parties in dispute who were present and also by the labor conciliator.

Copies of minutes of settlement or minutes of unsuccessful conciliation must be sent to the two disputing parties within one working day after the date of preparation of such minutes.

c/ Conciliation of collective labor disputes in Vietnam:

The order for conciliation of a collective labor dispute shall be implemented following the provisions in article 2.2 mentioned above. Minutes of conciliation must specify the type of collective labor dispute.

If conciliation is unsuccessful or if either of the parties fails to implement the agreement set out in the minutes of successful conciliation, then the following provision applies:

- In the case of a collective labor dispute about rights, the parties have the right to petition the chairman of the district people's committee to resolve the dispute;
- In the case of a collective labor dispute about benefits, the parties have the right to petition a labor arbitration council to resolve the dispute.

If on expiry of the time-limit for resolution stipulated in article 2.2.b mentioned above, the labor conciliator has not conducted a conciliation, the parties have the right to petition the chairman of the district people's committee to resolve the dispute.

The chairman of the district people's committee is responsible, within two (2) working days from receipt of a petition, to determine whether the dispute is one about rights or one about benefits.

1.7.1.3. Labor dispute resolution by Court in Vietnam:

A labor dispute shall be resolved by the Court to conduct labor dispute resolution if one of the two parties' files a petition [for resolution] because the other refused to negotiate, if the negotiation was conducted but was unsuccessful, or if the negotiation was successful but a party failed to implement [the agreement reached].

In the event of an unsuccessful conciliation, or if one of the parties fails to implement the agreement set out in the minutes of successful conciliation, or if on expiry of the time-limit for conciliation stipulated in clause 2 of this article the labor conciliator has not conducted a conciliation, each disputing party has the right to petition the people's court to resolve the dispute*****.

Labor-management relations

Labor-Management Relations is the interaction of employees, their exclusive representatives, and management to resolve, bilaterally, concerns affecting the working conditions of bargaining unit employees.

***** <http://www.lawyervn.net/en/dispute/dispute-resolutions/labor-dispute-resolution-in-vietnam.html>

In Vietnam, the management of labor relations is not only the management of wages and policies for employees but also the management of compliance procedures for the government.

Compliance procedures in labor relations management in Vietnam are:

- Recruitment procedures: Principles, recruit notice, employee background, ...
- Setting up labor relationship: Labor contract, labor declaration, PIT declaration, ...
- Enter and implement a labor relationship: Attendance, payroll, performance, ...
- Terminate a labor relationship: End the contracts, dismissals, liquidation, ...
- Discipline and settle any dispute: Warning, collecting technical evidence, lawsuit cases, ...

On internal labor regulations:

- Internal labor regulations are one of the most important contents of Labor relations management.
- Internal labor regulations registration is compulsory for the units having 10 people or more.
- Internal labor regulations represent the concretization of provisions of the Labor Code in each specific case of the company for violations of labor disciplines, in which, the extent of the violation, form of discipline, responsibility for material, and responsibility for compensation shall be considered and determined appropriately.
- On one hand, the internal labor regulations guide employees to properly comply with and respect the common interests, and contribute to the development of corporate culture; on another hand, the internal labor regulations help to prevent acts of infringement, intentional sabotage, conflict of interest and protect business secrets as well as legal rights and interests of employees.
- Without any properly registered internal labor regulations, the employer cannot take any disciplinary actions and still has to fully pay salary and wage even if any employee fails to complete their works or intentionally cause damage, and so on.

Registration of collective labor agreement:

Registration of collective labor agreement to clarify welfare policies and entitlement conditions of the laborers. A labor agreement usually includes the following:

- ***Job and job assurance:*** job assurance measures for employees; type of contract for each type of employment or type of work; cases of termination of employment contracts; policies on severance allowances, unemployment allowances, suspension allowances; improvement of skills, retraining upon any change in technique or organization-production; principles and time of temporary transfer of employees to other position.

- **Working time, rest time:** regulations on the length of working time during a day, a week; the arrangement of shifts and break time appropriate to each type of job or work; weekends, holidays; annual leave including travel time; leave for personal business; principles and cases of working overtime.
- **Salary, wage, allowance, bonus:** minimum salary or average salary (salary on monthly, daily or hourly basis); Salary scale and payroll applied in the company; measures to ensure actual salary, salary adjustment methods upon any fluctuation in market prices; salary payment principle (time-based salary, product-based salary or piece wage); principles of setting out and adjusting salary unit price; principles and conditions of raising salary grade; type of allowances; monthly payment of salary; payment for annual leave and travel cost; overtime salary; bonus (unplanned bonus, monthly bonus, year-end bonus, performance bonus, bonus deducted from profits) and bonus payment principles (rules may be attached).
- **Labor norms:** principles and methods of norm establishment, trial application, promulgation, and change; type of norm applied to types of employment; medium and advanced norms applied in the company; measures applied to the cases not satisfying norm.
- **Occupational safety and health:** measures to ensure occupational safety and health; standards and the provision of labor protection equipment; regulations on allowances in kind; measures to improve working conditions; compensation for work-related accidents, occupational diseases (rules may be attached).
- **Social insurance:** regulations on obligations and interests of the employer and employees in contributing, collecting, and paying social insurance. Other contents related to labor relations management such as labor dispute resolution method; mid-shift meal; collective welfare; allowances in case of wedding or funeral, etc. under the new regulations taking effect from 2016 onwards.

1.7.2 Trend of contractors, informal sector workers, and migrants (international and domestic)

Informal sector workers:

There are approximately 540,000 Vietnamese migrant workers currently overseas. Most are young men and women from rural areas who obtain low-skilled employment abroad in the manufacturing, construction, fishing, agriculture, domestic work, and service industries. A total of 142,860 workers went abroad through formal channels in 2018, 35% were women (Department of Overseas Labor, Ministry of Labor, Invalids and Social Affairs, 2019).

Migrant workers make a significant contribution to the economic development of Vietnam through remittances, providing a major source of foreign exchange income. In 2017, the World

Bank estimated that approximately US\$13.8 billion was sent home by Vietnamese migrants. This figure constitutes over six % of Vietnam's GDP, placing the economic importance of its remittances second only to the Philippines within Southeast Asia (World Bank, 2018).

The main destination countries for Vietnamese workers have traditionally been the more developed economies of East Asia, including Taiwan (China), South Korea, Malaysia, and Japan. However, in recent years, destinations have become increasingly diverse, including significant numbers of migrant workers to the Middle East, Northern Africa, Europe, and middle-income countries in Asia. A survey of over 23,000 migrants from Thanh Hoa and Ha Tinh provinces of Vietnam found that Thailand had become the most common destination for these women and men, making use of overland routes through the Lao People's Democratic Republic (ILO, 2015). These movements are almost entirely irregular, as the memorandum of understanding (MOU) signed between Vietnam and Thailand in 2016 has yet to be implemented and permits only employment in the fishing and construction sectors, where a relatively small number of Vietnamese migrants are employed (ILO and IOM, 2017)+++++++.

According to the 2016 Report on Informal Employment in Vietnam+++++++,

1. The number of workers in informal employment was found to be quite significant (more than 18 million persons), accounting for 57.2 % of non-agricultural workers nationwide. If workers engaged in agricultural households were included, the rate of informal workers would stand at 78.6 %.

2. Regarding total workers in employment within the whole economy, the number of informal and formal economy workers has tended to increase in recent years (2014- 2016). However, those involved in the agriculture, forestry, and fisheries fields have declined (24 million persons in 2014 to 21.8 million persons in 2016).

3. About 60% of informal economy workers were concentrated in rural areas, where numerous traditional handicraft villages, non-agricultural individual business households, and cooperative units operate.

4. The Mekong River Delta, North and South-Central Coast, and Red River Delta, as the most populous regions, have the highest numbers of informal economy workers nationwide. In

+++++++ https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/genericdocument/wcms_614384.pdf. Assessed on 13 October 2020.

+++++++ ILO/General Statistics Office. 2016 Report on informal employment in Vietnam. 2018

contrast, the Central Highlands and Northern Midlands and Mountainous regions have smaller populations, and workers were concentrated in agriculture and forestry, along with undiversified occupations and industries, resulting in small proportions of informal economy workers. Ha Noi and Ho Chi Minh City, as the nation's two largest cities and political-economic centers, have the highest numbers of informal economy workers, accounting for more than 20 % of informal economy workers nationwide.

5. The majority of informal economy workers were engaged in three groups of economic industries, "Manufacturing", "Construction" and "Wholesale and retail trade, repairing of cars, motorcycles and other motor vehicles". The proportion of informal economy workers from these three groups of economic industries accounted for nearly 70 % of total informal economy workers, while "Hotels and restaurants" made up 11 %.

6. The proportion of informal economy workers was high in the youngest age group (15- 24 years) and the 55 and over age group (60.2 and 74.4%, respectively).

7. The rate of trained informal economy workers was low at 14.8%, 5.7 percentage points less than that rate of trained workers in the whole economy, and 17.4 percentage points lower than of trained formal workers. Some 71.9% of non-agricultural workers without technical/professional qualifications were classified as in informal employment.

8. More than 6.4 million informal economy workers (35.6%) were engaged as "service workers, security guardians and sales workers" and more than 5.3 million informal economy workers (29.8%) worked as "handicraft or other relevant workers" and 18% of informal economy workers were classified as "unskilled workers". The remaining occupational groups accounted for small proportions of informal economy workers.

9. Out of all informal economy workers, 14.9 million (82.7%) were engaged in business production households or classified as own-account individual workers.

Migrant workers:

According to ILO in Vietnam, A total of 80,000 Vietnamese leave the country for jobs overseas each year. Approximately 500,000 Vietnamese workers are now present in over 40 countries and territories worldwide. Since 2014, the number of Vietnamese workers going abroad for employment exceeds 100 thousand workers per year. The key traditional destination markets to receive Vietnamese workers are Taiwan (China), Japan, Korea, and Malaysia. Recently, the number of destination markets has extended to other countries including the Middle East, North Africa, Europe, and some middle-income and low-income countries in Asia. Particularly, Taiwan is currently the greatest destination for Vietnamese workers under labor contracts. For

example, the total number of workers going to Taiwan to work was 66.926 thousand people (23.530 thousand of them were female). The total number of Vietnamese interns was also very high (over 100 thousand people) and making Vietnam is the largest country sending interns to Japan among the other 15 countries^{§§§§§§§§§§}. The annual inflows of remittances by labor migrants have reached about US\$2 billion in recent years, showing the economic significance of labor migration^{*****}.

International migration in Vietnam^{††††††††††}:

- Internal migration in Vietnam is mostly intra-regional, with only the Southeast having more migrants from another region (the Mekong Delta, which supplies 33.9% of the region's migrants, compared to 30.4% migrants who moved within the Southeast) (General Statistics Office 2016).
- The proportion of female migrants has risen over time (Schelling et al. 2012). Women now represent 52.4% of all migrants aged 15-59 (General Statistics Office 2016).
- Migrants are young: 85% are aged 15-39, with an average age of 29.2, though females tend to move at slightly younger ages.
- Most migrants (74.8%) aged 15-59 are employed. The majority of those who are unemployed moved for education purposes (General Statistics Office 2016).
- Female migrants dominantly work in the garment sector or as domestic workers, and male migrants in the production and construction sectors or as taxi/motorbike taxi drivers. Among both male and female migrants, the proportion employed in leadership positions is low (2.3% and 0.4% respectively).
- Only 30.9% of migrant workers have a formal written labor contract, compared to over 50% for non-migrants. 21% have verbal agreements and nearly 10% have no labor contract at all. This exposes migrant workers to the risk of exploitation and abuse.

Migrants mainly come from rural areas (around 79.1% according to National Internal Migration Survey 2015). The trend of migration from rural to urban areas has been increasing over time.

^{§§§§§§§§§§} https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-hanoi/documents/publication/wcms_626102.pdf
^{*****} <https://www.ilo.org/hanoi/Areasofwork/labour-migration/lang--en/index.htm>
^{††††††††††} <https://bangkok.unesco.org/sites/default/files/assets/article/Social%20and%20Human%20Sciences/publications/vietnam.pdf>. Assessed on 12 October 2020.

The most remarkable feature is that the unemployment rate among migrants is much higher than the general national unemployment rate (General Statistics Office, 2017).

1.8. Public Security, Disaster, and Public Safety

1.8.1 Current status of security issues such as crimes and riots, the occurrence of natural disasters, and traffic accidents,...

Status of security issues:

The U.S. Department of State has assessed Hanoi as being a HIGH threat location for crime directed at or affecting official U.S. government interests. Although most travelers feel relatively safe, non-violent crimes do occur in Vietnam with some frequency. Petty theft, purse snatching, and pickpocketing are the most common crimes and occur most frequently around hotels, tourist sites, airports, public parks, and other crowded areas popular among foreigners.

Drive-by snatching is one of the biggest crime threats. Two criminals riding a motorcycle will ride up to a target; the motorcycle passenger will then snatch the victim's camera, cell phone, or purse. This tactic can be especially dangerous to the victim if the strap of the bag is wrapped over their shoulder or around their neck, as the victim can be pulled down and injured.

Pickpocketing is another frequent crime, with one variation involving criminals using a knife to cut a hole in the bag and take valuables. If you are threatened with violence over money or belongings, comply with demands and attempt to end the confrontation as quickly and as safely as possible.

The occurrence of natural disasters

- Located in the tropical monsoon area in South East Asia, Vietnam is one of the most disaster-prone countries in the world. With a coastline stretching 3 440 km, combined with diverse and complex topography, Vietnam suffers from many different types of natural hazards. Because of its topography, Vietnam is susceptible to typhoons, floods, droughts, seawater intrusion, landslides, forest fires, and occasional earthquakes of which typhoons and floods are the most frequent and most devastating hazards. The storm season lasts from May to December with storms hitting the northern part of the country in May through June and moving gradually south from July to December. These are both hydro meteorological (e.g. typhoons, floods, heavy rainfalls, and droughts) and geophysical (e.g. landslides). It is estimated that approximately 70% of the population who live in coastal

areas and low-lying deltas in Vietnam are exposed to the risk of flooding^{*****}. Given the massive concentration of its population along the coastline and in the low-lying deltas, disasters take a heavy toll in lost lives and damaged livelihoods. The encroachment of economic activity and development into marginally suitable areas such as floodplains, coastal swamps, drainage channels, or other natural buffers only adds to the vulnerability of the population^{*****}.

- In 2016, The El Niño-induced drought and saline intrusion emergency had adversely impacted the lives of 2 million people, including 520 000 children and a million women with a shortage of water and food and lack of humanitarian assistance. Four hundred thousand (400 000) people became at risk of drought-related diseases or infectious disease outbreaks in 18 most affected provinces. Reduced access to drinking water and water for other domestic uses exacerbated the prevalence of malnutrition and communicable diseases.
- Severe floods due to heavy rains in five provinces (Nghe An, Ha Tinh, Quang Binh, Quang Tri, and Thua Thien Hue) led to 15 deaths, affected 500, 000 people, damaged 100 000 houses, and destroyed 10 000 ha of crops.

Vietnam is one of the most disaster-prone countries in the world. The table below describes the relative frequency of disaster phenomena in Vietnam and it is clear, that most of the disasters are direct or indirectly water-related (or caused by the absence of it).

- Vietnam's near-uniformly high rainfall should provide sufficient water for most of its needs.
- Water is one of the most crucial resources of the people of Vietnam. Much of what constitutes Vietnamese society emerged from centuries of struggle to capture annual rains to irrigate paddy rice. By no coincidence, the major Vietnamese population centers are on the banks of the Red River, Perfume, and Cuu Long rivers.
- However, water-related disasters are the most serious in Vietnam and cause regular and substantial suffering, loss of life, and economic damage.
- The water coming all within the space of a few short months, the monsoon rains saturate the earth, flood the rivers, and threatened the broad plains of the river deltas.

***** <https://www.who.int/vietnam/health-topics/disasters>. Assessed on 12 October 2020

***** https://nidm.gov.in/easindia2014/err/pdf/country_profile/Vietnam.pdf.

Coupled with seasonal typhoons that batter the coasts before moving inland, flooding is an annual occurrence in Vietnam.

- On average, 4 to 6 typhoons reach Vietnam each year, and hundreds of people are killed. It is anticipated that the number of heavy storms and typhoons to hit Vietnam will increase both in number and intensity with global warming.

Table 1.2 - Relative Frequency of Disaster Hazards in Vietnam

HIGH	MEDIUM	LOW
Flood	Hail & Rain	Earthquake
Typhoon	Drought	Landslide
Inundation	Erosion Fire Deforestation	Sea Water Intrusion

The worst damage is caused by floods, particularly when accompanied by typhoons. Typhoons raise sea levels many meters and cause storm surges up estuaries, inundating valuable cropland. Typhoons destroy buildings with their high-velocity winds and generate waves, which can damage sea dykes protecting coastal landholdings. The torrential rains, which accompany typhoons, can cause flash floods, which come upon settlements unawares and regularly submerge low-lying areas.

The runoff from these typhoon rains, when added to rivers already swollen by monsoon rains, creates floods which endanger river dykes and threaten to devastate millions of households.

One reason that water disasters are so serious is that most of the population lives in areas susceptible to flooding. This is because Vietnam has developed as a nation by exploiting the low-lying river deltas and coastal lands for wet-rice agriculture. Thus, both the broad Red River and Mekong Deltas and the narrow connecting coastal strip of the country are prone to flooding from monsoon rains and typhoon storms. Further, the remaining three-quarters of the country are mountainous and suffer from flash flooding. As a result, over 70% of the population of Vietnam is at risk of water disasters.

Besides, rivers whose flood plains are protected by a system of dykes, which confine floodwaters, have higher floodwater levels than they had formerly. At present, during the wettest months, the Red River near Hanoi can have water levels five or six meters above ground level, whereas 1,000

years ago waters only rose 2 to 3 meters above ground level. The river and coastal dyke systems of Vietnam are centuries old and suffer from piping, slides, and local collapse, despite the strengthening and repair work done by hundreds of thousands of people mobilized every flood season.

Over the past 25 years, more than 13,000 people have been killed by natural disasters. A tropical depression off the coast of Thanh Hoa in 1996 caught thousands of fishermen at sea; over 600 lost their lives. In the same year, in the mountain province of Lai Chau, the hamlet of Lo Le was washed off the map by a flash flood, 89 people were killed. In 1997, typhoon Linda became the worst natural disaster in living memory. Skirting the tip of southern Vietnam, this claimed the death toll of over 3,000 people and more than \$US 400 million in damages.

Finally, regards non-water-related disasters in Vietnam, while fewer commons than water disasters are having an ever-greater impact on the country. Vietnam's remarkable socio-economic and industrial development over the last ten years has increased the risk of technological accidents; industrialization and population growth have put severe pressure on Vietnam's forests; climate change has led for the first time to drought in certain areas, thereby increasing the risk of forest fire as well*****.

Every year, natural disasters cause an average of 750 deaths and result in annual economic losses equivalent to 1.5% of GDP. However, damage and loss data are chronically underreported, so real totals may be much higher. As most of the population is living in low-lying river basins and coastal areas, more than 70% of the population is estimated to be exposed to risks from multiple natural hazards. A 2007 assessment of the World Bank listed Vietnam as one of the five worst-affected countries by climate change, as a large proportion of the population, infrastructure, and economic production including irrigated agriculture, is located in coastal lowlands and deltas††††††††††.

Vietnam suffers relatively less from natural disasters in 2019. Fewer storms hit Vietnam in 2019 than in the previous year and the losses they caused fell to a record low. A report from the Ministry of Agriculture and Rural Development said natural disasters, mostly flooding, tropical storms, and landslides, left 133 people dead and missing last year, down 40% from 2018. They

***** <https://www.adrc.asia/management/VNM/Vietnam1.html>. Assessed on 12 October 2020

†††††††††† https://nidm.gov.in/easindia2014/err/pdf/country_profile/Vietnam.pdf.

caused losses worth around VND7 trillion (\$302.6 million), a third of the previous year's figure of VND20 trillion (\$858 million).

The occurrence of traffic accidents

Vietnam is one of a group of low- and middle-income countries which according to global statistics, suffers 90% of global road traffic deaths whilst having only 54% of all road vehicles. In recent years, the Government of Vietnam has gone to great lengths to deal with traffic accidents, resulting in a continuous fall in deaths and injuries as reported by the Department of Traffic Police. These results primarily come from the country's efforts and its active response to the call for actions of the United Nations Decade of Action for Road Safety. Vietnam has also studied how other countries ensure traffic management safety and security, and has received support, resources, and knowledge from international organizations, non-governmental organizations, and developed and developing countries. The number of road traffic accidents in Vietnam, however, remains high, a situation that requires both continued internal efforts and assistance from abroad.

The overall rate of traffic accidents: In 2005-2007, there was a marked increase in the number of fatalities caused by traffic accidents, to a peak of 12,800 deaths in 2007. On 15 December 2007, wearing a helmet became compulsory for drivers of motorcycles and mopeds. The following year there was a 1,557-person drop in fatalities, one of the greatest falls in the number of fatalities related to traffic accidents ever recorded. In the years 2014, 2015, and 2016, less than 9,000 people a year died on roads in Vietnam.

Traffic accidents on different types of roads: The highest number of fatalities – 36.01% of total deaths – occur on national highways because of the high speeds and high transport densities that exist along these routes. Urban roads account for 33.9% of fatalities, with many of these fatalities occurring where urban roads join national highways.

Traffic accidents over time: Regarding the times at which traffic accidents take place throughout the day, some 40% of accidents occur at night between the hours of 18:00 and 24:00. This is followed by the period from 12:00 to 18:00 (30.5% of accidents), meaning that the hours between 12:00 and 24:00 account for some 70 % of total traffic accidents.

Road traffic accidents by type of vehicle: Motorbikes or motorcycles can be considered unsafe vehicles, in that road accidents related to the drivers of these vehicles, account for some 70 % of total cases.

Road traffic accidents by age: Accounting for approximately 50% of total cases, people between the ages of 27 and 55 are the group most affected by road traffic accidents. Out of this

age range, those between the ages of 18 and 27 years of age suffer 35.94% of total road traffic accidents. Some 86% of all accidents occur among people aged 18 to 55, who are of working age.

Road traffic accidents by gender: The frequency of road traffic accidents is far higher among men than it is among women, with an occurrence rate of around 85% and 15%, respectively

Road traffic accidents by cause: Analyzing road traffic data from 2016, the primary cause of traffic accidents was a lane violation, accounting for 25 to 30% of accidents. Speed violation was the second most common cause during that period, from 10 to 13%. In 2015, the speed violation rate dropped to 8.82%, but in 2016 rose again to 9.35 % due to more stringent speed regulations. The percentage of incidents where driving under the influence of alcohol caused traffic accidents was 4 to 5% of total cases, a very low figure compared to the actual situation. This is because when traffic accidents occur, the police do not have blood testing equipment (the test must take place at a medical clinic), so there is insufficient evidence to link traffic accidents to alcohol violations. People under the influence of alcohol also violate other traffic rules such as speeding, driving in the wrong lane, etc., meaning the cause of these traffic accidents is recorded as traffic rule violations; driving over the alcohol limit, therefore, becomes an indirect reason for road traffic accidents*****.

Road traffic injuries (RTIs) are among the leading causes of mortality in Vietnam. However, mortality data collection systems in Vietnam in general and for RTIs in particular, remain inconsistent and incomplete.

Traffic accidents remain the biggest single cause of fatalities in Vietnam even as the country has been working to make local roads safer. According to the World Health Organization, on average, road traffic accidents kill approximately 14,000 people in Vietnam every year and are the leading cause of death among those aged between 15 and 29 years. Motorcyclists account for more than half of the fatalities.

Official statistics show that in the past five years, the death toll has decreased by 21% to about 48,000 and the number of injured people has shrunk by 22 percent to 162,000, compared to the previous five-year period.

According to Vietnam's National Traffic Safety Committee, 2017, some 20,000 accidents happened due to traffic in Vietnam, killing more than 8,000 victims and injuring 17,000 others

***** https://www.unece.org/fileadmin/DAM/trans/roadsafe/unda/RSPR_Viet_Nam_FULL_e.pdf.

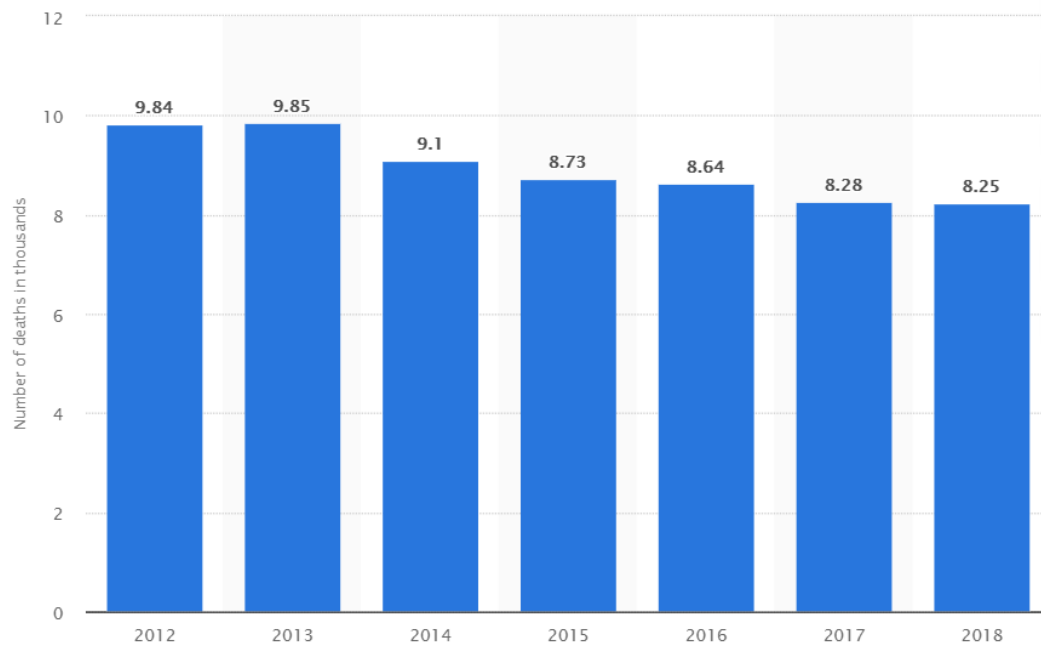


Figure. 1.3. Number of deaths caused by traffic accidents in Vietnam from 2012 to 2018 (in 1,000s)

1.9. Relationship with Japan

1.9.1 Relations with Japan in politics and economy

Vietnam and Japan are two countries that share many similarities in history, tradition, customs, and culture. These commonalities and interactions could serve as a solid foundation for their profitable cooperation.

Japan has become an increasingly important partner of Vietnam as the bilateral ties have not only brought about direct benefits to both sides but also contributed to ensuring peace and prosperity in Asia and beyond.

Vietnam and Japan established diplomatic ties on September 21, 1973, upgrading bilateral ties to Strategic Partnership in 2009, and to Extensive Strategic Partnership for Peace and Prosperity in Asia in 2014.

<https://www.statista.com/statistics/986123/vietnam-number-deaths-traffic-accidents/>.

Japan was the first G7 member inviting a Vietnamese Party General Secretary to visit the country (1995), establishing a strategic partnership with Vietnam, recognizing Vietnam's market economy status (2011), and inviting Vietnam to an expanded G7 Summit (in May 2016).

Both countries are now enjoying the best stage of the relationship thanks to regular exchanges of visits and contacts at regional and international forums. The two sides set up several cooperation mechanisms like Cooperation Committee (led by two foreign ministers) in 2007, Strategic Dialogue on diplomacy-security-defense at deputy foreign ministerial level in 2010, Defense Policy Dialogue at deputy ministerial level in 2012, Security Dialogue at deputy ministerial level in 2013, Joint Committee for Cooperation in Industry, Trade and Energy in 2014, and Agriculture Dialogue at ministerial level in 2014

In the past 45 years, the Vietnam-Japan friendship has been developing continuously despite many difficulties and challenges. The bilateral relations have seen a new, effective, and strong framework of cooperation. Based on a long-term and stable partnership, the two sides have become strategic partners for peace and prosperity in Asia and now the comprehensive strategic partner for peace and prosperity in Asia.

Politically, the relationship between the two countries is at the best stage with strong confidence in history since the establishment of diplomatic relations. High-ranking leaders of the two countries maintain frequent visits and contacts at international and regional forums. Particularly, in 2017, there were five high-level visits within the year for the first time, including the historical visit of Japanese Emperor Akihito and Empress to Vietnam, Prime Minister Shinzo Abe's two-time visit to Vietnam, the Speaker of the House of Representatives' visit to Vietnam after 15 years. 2017 also marked new move-in bilateral relations when the two countries issued a joint statement on deepening Vietnam-Japan comprehensive strategic partnership during the official visit to Japan by Vietnam's Prime Minister Nguyen Xuan Phuc in June 2017.

In the field of economics, Japan continues to be the leading economic partner of Vietnam and is the first country of G7 to recognize the market economy status of Vietnam in October 2011. At the present, Japan has become the second biggest foreign investor, the fourth largest trading partner, and the third-largest tourism partner of Vietnam. In 2017, the total trade turnover between the two countries reached over 33 billion USD. In particular, Vietnam's export volume to Japan reached about USD 17 billion. Only in the first quarter of 2018, the total trade turnover between the two countries reached 8.7 billion USD, increasing by 16% compared to the same period in 2017. As of the end of March 2018, Japan had invested in nearly 3,700 valid projects in Vietnam with the total registered capital of 50 billion USD, taking second place among 116 investing countries and territories in Vietnam. Japan is also the largest official development

assistance (ODA) country in Vietnam, accounting for over 30% of the total committed ODA from the international community to Vietnam. Japanese ODA in the field of infrastructure construction, competitiveness enhancement, high-quality human resources training, climate change response, and others have contributed significantly to Vietnam's socio-economic development^{*****}. Japan is the biggest provider of official development assistance for Vietnam (US\$23.76 billion as of January 2019) and the second-largest investor with accumulative capital of US\$60.36 billion as of September 2019⁺⁺⁺⁺⁺.

The two countries need to inherit the foundation of good development, continuously promote cooperation and realize the intensive strategic partnership for peace and prosperity in Asia with the view to shaping a new strategic partnership model in the East Asia-Pacific region, building on the basics of strategic trust, comprehensive cooperation and shared responsibility for regional and global issues; continue to improve connectivity and economic cooperation in line with the trend of regional integration and the rapid evolution of the 4th Industrial Revolution; continue to promote and improve the effectiveness of development assistance relations, especially Japan's support to Vietnam in new strategic cooperation chapters; strengthen cooperation in the socio-cultural field; train and foster leaders and managers; and promote people exchange, particularly among younger generations to enhance the understanding and sharing. These efforts will create a firm foundation for deepening relations between the two countries in the future.

1.9.2 Local status of Japanese companies operation

Each year, the office receives representatives of around 6,000 Japanese firms seeking investment opportunities in Vietnam, with many keen to expand the provision of services⁺⁺⁺⁺⁺. A survey recently carried out by the Japan External Trade Organization (JETRO) indicates that 41% of Japanese companies are considering expanding their operations in Vietnam over the next three years, a 5.5% rise from a year earlier^{ssssssssssss}. Up to 70% of Japanese businesses have announced that they want to expand operations in Vietnam, especially in the manufacturing, trade, and service, and retail sectors, according to the Japanese External Trade Organization

***** <https://hcma.vn/english/news/Pages/features.aspx?CatelD=200&ItemID=9132>

+++++ <http://news.chinhphu.vn/Home/Infographics-Highlights-of-Viet-NamJapan-relations/201910/37786.vgp>

+++++ <https://en.nhandan.org.vn/business/companies/item/7214402-jetro-70-of-japanese-firms-to-expand-investment-in-vietnam.html>

ssssssssssss <https://vietnaminsider.vn/japanese-companies-consider-expanding-operation-in-vietnam/>

(JETRO). Findings of the latest survey conducted by JETRO on the investment trend of Japanese firms operating in Vietnam in 2019 show that as many as 65.3% of the 787 Japanese companies recorded high profits in Vietnam in 2018. The majority of these companies said the market scale and growth are the greatest advantages of Vietnam's investment environment. Other positive factors include low labor costs, political stability, and improvement of customs and administrative procedures. It also indicated that some 71% of Japanese companies operating in Vietnam forecast that their revenue would drop this year due to shrinking demand in the wake of the Covid-19 pandemic, a figure much lower compared with other Asian countries.

The main sectors of Japanese businesses in Vietnam are: industry of electronic, cars and automobile devices/components; processing agricultural and aquatic products, shipbuilding; Processing agricultural machinery and equipment; manufacturing of consumer goods; and Environmental Technology and Energy, constructions, and other retail and services sectors (Family Mart, Aeon Mall, Uniqlo,...)

1.9.3 Status of Official Development Assistance (ODA) by the Japanese government

Japan has provided ODA to Vietnam in various areas including (1) infrastructure development such as ports, railroads, power plants, and hospitals; (2) human resource development such as dispatch of experts and counterpart training at ministries, universities, institutes, and hospitals; (3) health and education sector development such as renovation and development of hospitals, primary schools, and universities; (4) rural development such as dispatch of technical experts to agricultural universities; and other important areas.

Japan is considered as Viet Nam's top economic partner as it is the country's largest provider of ODA over the past 26 years and second-biggest foreign investor. Aiding the country's efforts to boost the economy, reduce poverty, and develop infrastructure.

Japan's ODA into Vietnam has increasingly become stricter and expensive. As such, lending rates for loans during the fiscal year 2018 rose 0.3% from October 1, 2017. Moreover, preferential rates applicable to loans also rose from 0.3 to 1% per year. Japan began requiring setting the salary level of advisors for financial loan projects at about \$30,000 per month per person, not including allowances – 20-25 % higher than average salaries of foreign ODA consultants *****.

***** <https://www.vir.com.vn/balancing-act-required-for-efficiency-of-oda-in-vietnam-79119.html>

Recently, Japan's official development assistance (ODA) to Vietnam would be adjusted to meet the recipient country's requirements which are updated with fields of global concerns, according to the Japan International Cooperation Agency (JICA). The funding should be changed to be suitable for global politics and economy as well as Vietnam's rapid economic growth. Japan's ODA focuses on three priority areas including promoting growth and competitiveness; response to fragility; and good governance.

PART II

HEALTHCARE AND PUBLIC HEALTH

2.1. Status of Public Health, Disease, and Cause of Death

2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information

a. Status of communicable disease:

Communicable diseases remain a problem in Vietnam although non-communicable diseases are gaining in prominence. Dengue remains a problem in Vietnam and requires a multi-sectoral approach. Rabies continues to cause have relatively high mortality and major preventative efforts are being made. Emerging infectious diseases have posed major challenges in Vietnam. This has led to setting up new mechanisms to monitor developments and strengthen epidemiological surveillance, to permit an early response. Emergency response to contain the risk of the infection spreading involves quarantine, monitoring the health of people exposed to the patient, outlining diagnostic and treatment regimens as well as organizing preventative services††††††††††††††††.

In Vietnam, currently, major challenges of communicable diseases are††††††††††††††††††††††††

- Emerging communicable diseases: hand, foot, and mouth disease, Avian flu, Mers-CoV infection, Ebolavirus, Zikavirus, Coronavirus,...
- Reappeared diseases: dengue fever, measles, Rubella,...
- Other infectious and infectious diseases: hepatitis, HIV/AIDS, encephalitis, serious infections and infections, pneumonia, malaria ...
- Hospital infections and antibiotic resistance.

In infectious diseases such as dengue fever, hand, foot, and mouth disease (HFMD), malaria, diarrhea, viral hepatitis, measles, influenza... are endemic diseases, many diseases develop according to seasons, so pre-epidemic prevention and control are very important to minimize morbidity and mortality. Table 2.1-2.3 shows the trend of morbidity and mortality of 27 common communicable diseases in Vietnam in the period of 2013 – 2018 according to Health Statistics Yearbook annually.

††††††††††††††††††††††††

https://www.who.int/neglected_diseases/countries/vnm/en/#:~:text=Communicable%20diseases%20remain%20a%20problem,preventative%20efforts%20are%20being%20made.

†††††††††††††††††††††††† <https://healthvietnam.vn/thu-vien/tai-lieu-tieng-viet/truyen-nhiem-va-cac-benh-nhiem-doi/mot-so-benh-truyen-nhiem-moi-noi-va-tai-noi>

Table 2. 1. Mobility and mortality of some communicable diseases (2013 – 2017) ¹*Unit: rate/100 000 population*

	2013	2014	2015	2016	2017	2018
Leptosies						
Morbidity rate	-	0.20	0.19	0.16	0.14	
Gonorrhoea						
Morbidity rate		7.46	4.03	5.12	5.54	
Syphilis						
Morbidity rate		1.97	1.78	2.95	1.74	
HIV						
Morbidity rate		-	-	-	-	222.3
Deaths		-	-	-	-	102.426

Table 2. 2. The morbidity rate per 100,000 populations of major communicable diseases by years in Vietnam (2013 – 2018) ¹⁻⁶*Unit: rate/100 000 population*

No	Diseases	2013	2014	2015	2016	2017	2018
1.	Diarrhea	736.21	624.14	548.85	477.10	0.38	272.78
2.	Viral encephalitis	0.96	1.20	1.04	1.06	1.26	0.70
3.	Dengue fever	73.3	34.28	105.56	136.07	183.85	149.87
4.	Malaria	39.44	30.67	6.77	11.27	8.98	7.05
5.	Viral hepatitis	11.00	6.73	7.05	7.98	30.57	12.86
6.	Anti-rabies immunization	133.37	435.24	0.11	445.49	0.08	0.06
7.	Meningitis	0.03	0.05	37.35	0.05	0.06	0.02
8.	Chicken pox	28.30	45.47	0.03	28.76	45.60	69.54
9.	Diphtheria	0.01	0.02	0.40	0.01	0.02	0.00
10.	Whooping cough	0.08	0.07	15.46	0.27	0.60	0.43
11.	Amoebiasis	24.49	19.52	31.34	14.19	11.59	8.40
12.	Shigellosis	44.66	39.11	0.05	25.10	16.67	12.21
13.	Neonatal Tetanus	0.05	0.04	0.34	0.03	0.05	0.03

No	Diseases	2013	2014	2015	2016	2017	2018
14.	Other tetanus	0.36	0.22	4.24	0.35	0.61	0.12
15.	Acute flaccid paralytic syndrome	0.48	0.30	0.27	0.27	0.21	0.06
16.	Measles	3.75	37.26	0.99	0.66	0.58	5.10
17.	Mumps	23.92	16.58	30.01	42.33	37.59	24.92
18.	Rubella	1.00	2.54	0.50	0.52	0.20	0.10
19.	Influenza	1,395.87	1,207.59	1049.47	883.37	723.77	558.80
20.	Cholera	0.00	0.00	0.00	0.00	0.00	0.00
21.	Adenoviruses	160.98	70.53	21.78	22.57	0.00	15.19
22.	Plague	0.00	0.00	0.00	0.00	20.68	0.00
23.	Typhoid	0.90	0.80	0.66	0.58	0.68	0.01
24.	Anthrax	0.06	0.04	0.03	0.02	0.02	0.01
25.	Leptospirosis	0.01	0.03	0.01	0.01	0.02	0.00
26.	HFMD	95.44	84.92	60.13	51.17	113.09	142.24
27.	Streptococcosis suis infection	0.13	0.08	0.11	0.11	0.19	0.05

Table 2. 3. The mortality rate per 100,000 population of major communicable diseases by years (2013 – 2018) ¹

Unit: rate/100 000 population

No	Diseases	2013	2014	2015	2016	2017	2018
1.	Diarrhea	0.01	0.01	0.01	0.01	0.01	0.02
2.	Viral encephalitis	0.01	0.05	0.03	0.04	0.04	0.02
3.	Dengue fever	0.05	0.02	0.06	0.05	0.04	0.02
4.	Malaria	0.01	0.01	0.00	0.00	0.01	0.00
5.	Viral hepatitis	0.00	0.00	0.00	0.00	0.01	0.00
6.	Anti-rabies immunization	0.12	0.07	0.00	0.10	0.08	0.06
7.	Meningitis	0.00	0.01	0.00	0.01	0.00	0.00
8.	Chicken pox	0.00	0.00	0.00	0.00	0.00	0.00

No	Diseases	2013	2014	2015	2016	2017	2018
9.	Diphtheria	0.00	0.00	0.00	0.00	0.01	0.00
10.	Whooping cough	0.00	0.00	0.00	0.00	0.00	0.00
11.	Amoebiasis	0.00	0.00	0.00	0.00	0.00	0.00
12.	Shigellosis	0.00	0.00	0.00	0.00	0.00	0.00
13.	Neonatal Tetanus	0.03	0.03	0.01	0.01	0.02	0.01
14.	Other tetanus	0.02	0.02	0.08	0.02	0.01	0.00
15.	Acute flaccid paralytic syndrome	0.00	0.00	0.00	0.00	0.00	0.00
16.	Measles	0.00	0.03	0.00	0.00	0.00	0.00
17.	Mumps	0.00	0.00	0.00	0.00	0.00	0.00
18.	Rubella	0.00	0.00	0.00	0.00	0.00	0.00
19.	Influenza	0.02	0.01	0.00	0.00	0.00	0.01
20.	Cholera	0.00	0.00	0.00	0.00	0.00	0.00
21.	Adenoviruses	0.00	0.00	0.00	0.00	0.00	0.00
22.	Plague	0.00	0.00	0.00	0.00	0.00	0.00
23.	Typhoid	0.00	0.00	0.00	0.00	0.00	0.00
24.	Anthrax	0.00	0.00	0.00	0.00	0.00	0.00
25.	Leptospirosis	0.00	0.00	0.00	0.00	0.00	0.00
26.	HFMD	0.03	0.01	0.01	0.00	0.00	0.00
27.	Streptococcus suis infection	0.01	0.01	0.02	0.01	0.02	0.00

In 2017, respiratory infections and tuberculosis were the leading fatal communicable diseases in Vietnam, causing 5.9 percent of all deaths in the country. In 2020, the main communicable diseases tend to decrease as compared to 2019. The number of cases of dengue fever decreased by 46%; hand, foot, and mouth disease decreased by 44%, the fever suspected

<https://www.statista.com/statistics/1107618/vietnam-main-fatal-communicable-diseases/#:~:text=In%202017%2C%20respiratory%20infections%20and,33.18%20percent%20of%20total%20deaths.>

Vietnam’s burden of diseases has witnessed a significant shift from communicable to non-communicable diseases. The incidence of communicable diseases decreased from 55.5% in 1976 to 20.79% in 2018. In 2018, the non-communicable disease incidence was 69.11% (Figure 2.1)¹. From 1976 to 2018, the mortality rate of communicable diseases fallen sharply by over 41% while its rate of non-communicable diseases rose over 18% (Figure 2.3). According to the Institute for Health Metrics and Evaluation, among the top causes of death, 9 over 12 diseases confirmed were NCDs with a significant increase from 2009 to 2019 (Figure 2.4).

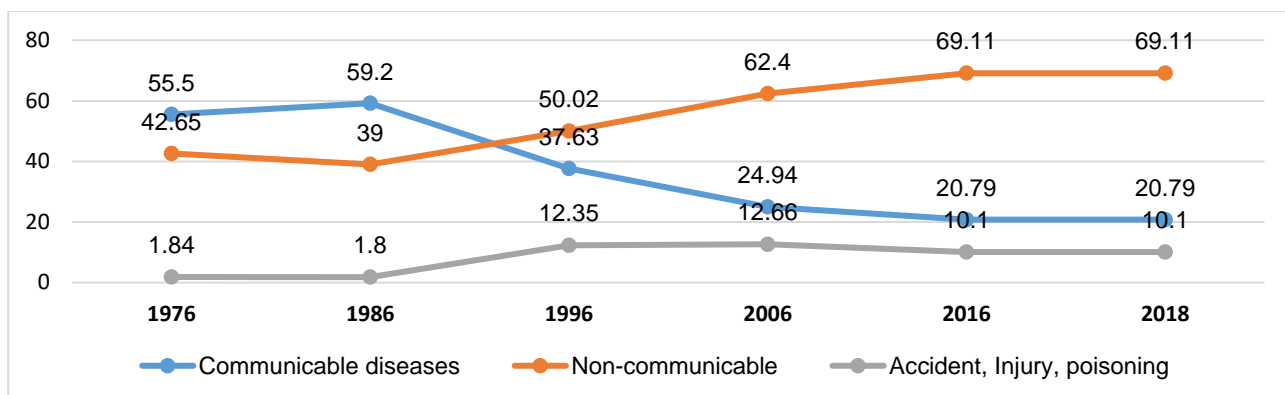


Figure 2. 3. Morbidity trend in Vietnam (%), 1976 – 2018¹

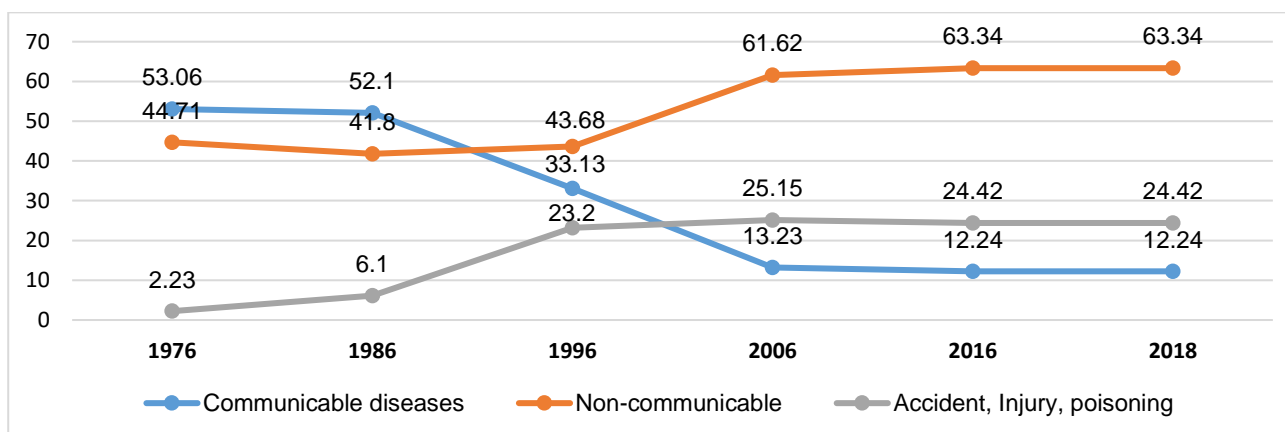


Figure 2. 4. Mortality trend in Vietnam (%), 1976 – 2018¹

The top 12 causes of the total number of deaths in 2019 and percent change 2009–2019 are presented in Figure 2.5.

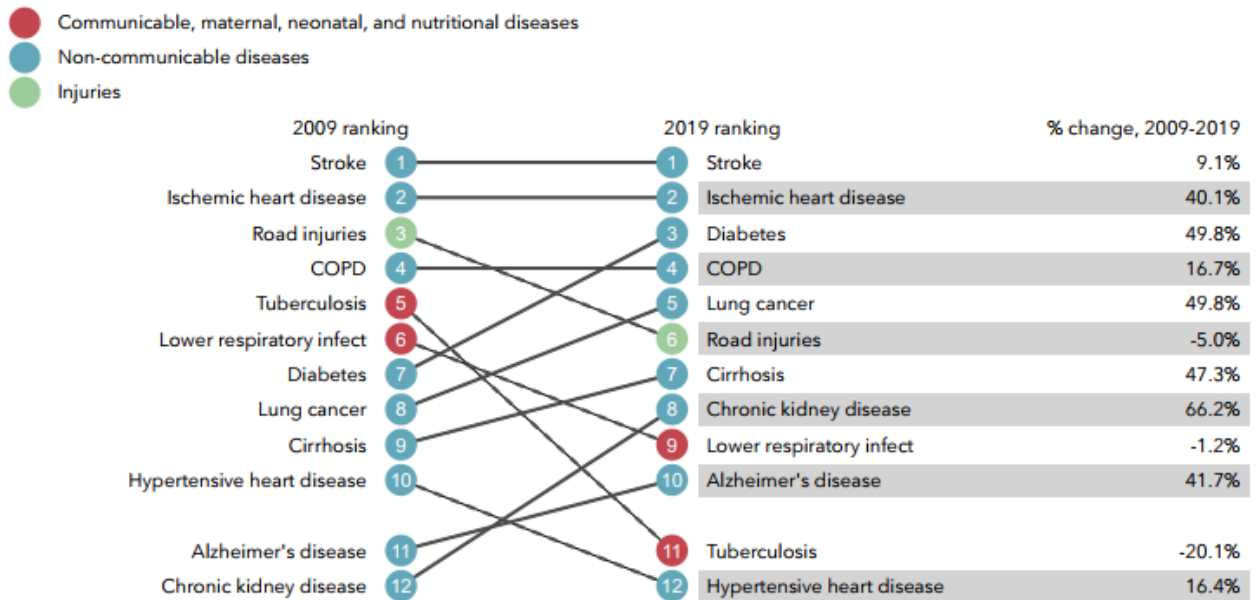


Figure 2. 5. Top 10 causes of the total number of deaths in 2019 and percent change 2009–2019, all ages combined ⁷

c. Leading cause of death

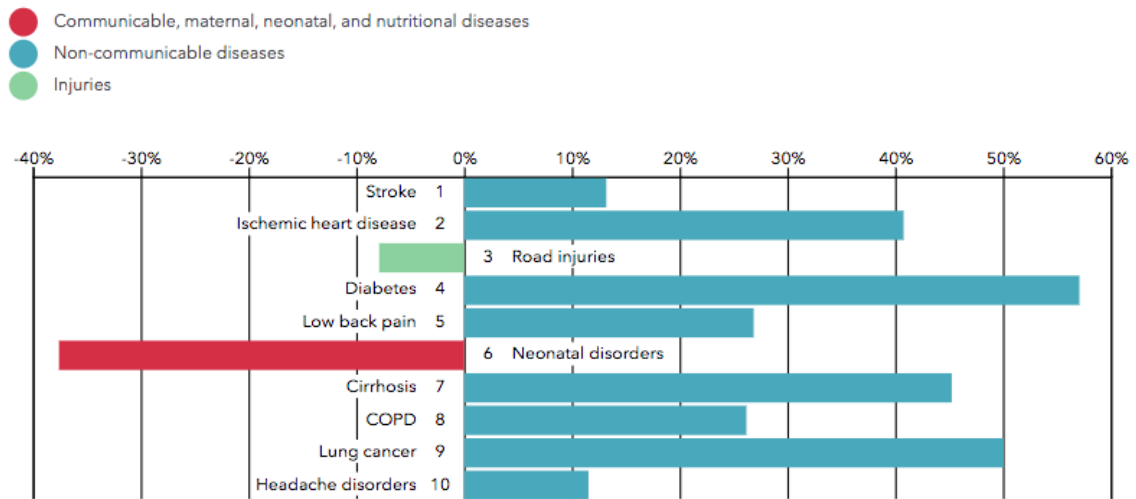


Figure 2. 6. Top 10 causes of most death and disability (DALYs) in 2019 and percent change 2009–2019, all ages combined ⁷

Some leading causes of death are presented in Figure 2.6. Cardiovascular disease (CVD) represents the most important cause of death followed by cancer. In terms of both death and disability, CVD remains the first cause followed by road injuries, diabetes, and lung cancer. For CVD, the leading cause of death and disability in stroke followed by ischemic heart disease (IHD), these two causes of death represent by themselves the two leading single cause of death in Vietnam. Road injuries represent the third leading cause of death and disability. In 2017, the

Cardiovascular disease (CVD), which includes strokes and ischemic heart disease, is responsible for 31% of deaths in Vietnam, equivalent to about 170,000 cases*****. Cancers of the lung and liver follow closely behind.

Strokes cause the most deaths in the Vietnamese population with 200,000 new cases each year; half of them are fatal. In Vietnam, strokes cause the most deaths with an estimated 200,000 new cases reported each year. 50% of those cases are fatal and 90% of survivors experience post-stroke effects such as cognitive disorders, impaired mobility, and speaking or swallowing problems††††††††††††††††††

In Vietnam, the incidence of diabetes has been increasing at an alarming rate with it doubling in the past 10 years‡‡‡‡‡‡‡‡‡‡‡‡‡‡‡. The number of pre-diabetics has also increased by three times as many as there are diabetics. 1 in 17 Vietnamese adults (1 in 15 men and 1 in 20 women) has diabetes§§§§§§§§§§§§§§§§

Although the prevalence of diabetes in Vietnamese and Vietnamese-Americans are not the highest relative to other ethnic groups, they have one of the fastest-growing incidence rates.

Vietnamese and Vietnamese-Americans face many challenges including smoking habits, impaired physician-patient communications, and healthcare access that contribute to the health ailments they experience.

Although there may be many factors contributing to these high death rates due to chronic diseases, risky health behaviors, such as smoking, and the state of the healthcare system can be considered two main contributors to the leading causes of death in Vietnam. The high smoking rates and high costs of healthcare are hindering the health of Vietnam and may be related to the top causes of death, including stroke, ischemic heart disease, chronic obstructive pulmonary disease (COPD), and lower respiratory infections (World Health Organization and UN partners, 2015).

Lifestyle factors like diet and nutrition, physical inactivity, smoking, and alcohol use, and environmental pollution also contribute significantly to the death and disability burden in

***** “Cardiovascular Diseases (CVD) in Viet Nam.” World Health Organization, World Health Organization, www.who.int/vietnam/health-topics/cardiovascular-diseases.

†††††††††††††††† “Stroke Detection and Prevention.” FV Hospital, FVHospital.com, 14 Mar. 2019, www.fvhospital.com/news/stroke-detection-and-prevention/.

‡‡‡‡‡‡‡‡‡‡‡‡‡‡ “The Growing Burden of Diabetes in Viet Nam.” World Health Organization, World Health Organization, 7 Apr. 2016, www.who.int/vietnam/news/feature-stories/detail/the-growing-burdenof-diabetes-in-viet-nam.

§§§§§§§§§§§§§§§§ Pham, Ngoc Minh, and Karen Eggleston. “Diabetes Prevalence and Risk Factors Among Vietnamese Adults: Findings From Community-Based Screening Programs.” *Diabetes Care*, American Diabetes Association, 1 May 2015, care.diabetesjournals.org/content/38/5/e77.

- (3) **Air pollution:** air pollution represents a significant threat both for the significant impact it has on human health and the significant exposures present in Vietnam especially in urban areas. Air pollution has been linked, among many other diseases, to CVD, lung disease and cancer, and acute lower respiratory infection in children
- (4) **Physical inactivity:** data from a survey from the Ministry of Health shows that 70% of adult Vietnamese do not engage in vigorous physical activity and that office workers walk, on average, only 600 steps a day, instead of the recommended 10 000
- (5) **Overweight and obesity:** The highest prevalence of overweight and obesity is observed in urban areas and women older than 35 years of age
- (6) **Salt consumption:** Vietnamese studies indicate that the average daily consumption of salt is approximately 18 to 22 g/day, an amount that is significantly more than the WHO recommended daily intake of 5 g/day

d. Infant mortality

The statistic shows the infant mortality rate in Vietnam from 2009 to 2019. In 2019, the infant mortality rate in Vietnam was at about 15.9 deaths per 1,000 live births (Figure 2.9).

The statistic shows the infant mortality rate in Vietnam from 2009 to 2019. In 2019, the infant mortality rate in Vietnam was at about 15.9 deaths per 1,000 live births. The percentage of the under-five mortality rate in Vietnam was 19.9 per 1,000 live births in 2019 (Figure 2.10).

General Statistics Office (Vietnam), Ministry of Health (Vietnam), National Institute of Nutrition (Vietnam), United Nations Children's Fund (UNICEF). Vietnam General nutrition survey 2009-2010. Available: http://viendinhduong.vn/FileUpload/Documents/Summary_report_gns_2009-2010_chuan.PDF [Accessed Feb 2020].

births) in 1990. This rate in children under 1 was about 3.4 times decreased in 1990 (33.6/1,000 live births) compared to 2019 (9.9/1,000 live births)⁷. Also, Vietnam was certified Polio free in 2000 and Maternal and Neonatal Tetanus has been eliminated in 2005 due to high routine immunization coverage¹².

Vietnam's universal health coverage index is at 73—higher than regional and global averages—with 87 percent of the population covered. However, the high and widening sex ratio at birth (115 in 2018) shows that fundamental gender discrimination persists¹³.

5. Other public health information

According to Health Statistics Yearbook, 2018¹⁴:

- The total number of insured people was 83.5 million, accounting for 86.8% of the population have a health insurance card.
- Vietnam still faces a malnutrition burden among the under 5 population. The national prevalence of under-five malnutrition status was 24.3% for stunting, 13.2% for underweight, and 6.1% for wasting.
- The percentage of immunized children was 96.8%.
- The top 12 morbidities and mortality of vaccine-preventable diseases of Vietnamese children are Diphtheria, Pertussis, Acute flaccid paralysis, Neonatal Tetanus, Tuberculosis meningitis, Other Tuberculosis, Measles, Hepatitis, Cephalitis, Cholera, and Typhoid.
- The number of deaths due to accidents in the whole country in 2017 was 38.1 per 100 000 population, in which male was found higher than female (59.2 vs 17.1, respectively). The leading causes of deaths due to accidents were road traffic injury, suicide, drowning, natural disasters, occupational injury, electrocution, violence/conflict, fall,...

2.2. Training and Supply for Physicians and Healthcare Professionals

2.2.1. Educational system for healthcare professionals

Training is regulated by the Law on Education (1998, amended in 2005, amended and supplemented in 2009, and amended in 2019), the Law on Higher Education (2011, amended in 2018), and Law on Vocational Training (2014). The Government manages national education and approved the Framework for national education system structure and Vietnam's National Framework on qualifications¹⁴⁻²¹.

Medical training in Vietnam allows two training systems: (i) a research-based system (including higher education and vocational training) managed by the Ministry of Education and Training (MOET) and the Ministry of Labor, Invalids and Social Affairs; and (ii) a medical practice-based system managed by the MOH. The Government assigns ministries and local government to manage educational activities depending on the types of educational institutions and training levels^{12,17-22}.

2.2.1.2. Training institutions

Vietnam public educational institutions system is comprised of secondary medical schools, medical universities and colleges. According to the MOH, in 2019, there are total 44 medical universities/colleges (22 of which are public units) offer health professional training programs²³, increasing by 8 in comparison to 2014¹². Available statistics in 2014 shows that Vietnam has 41 colleges and 81 secondary schools training health professionals¹².

Every year, the Ministry of Education and Training (MOET) and the Ministry of Labor, Invalids and Social Affairs approves enrollment quotas upon the request of universities and colleges under its management. The provincial government or the ministries/agencies approve the quota for secondary medical schools under their management. The proposed quota depends on school conditions and should not usually exceed the student-to-teacher ratio defined by the Ministry of Education and Training ¹².

From 1990 onwards, and particularly in the early 2000s, many private colleges and universities offering health programs appeared in Viet Nam. The majority are secondary schools offering two-year nursing, assistant doctor or medical technology programs. There are also many colleges offering three-year programs in nursing and pharmacy. Public training institutions are state-funded annually through governing bodies as well as gaining revenue from tuition. Private training institutions are funded through capital of organizations and individuals as well as tuition. Although no official data are reported, tuition in private schools is usually higher than in public schools ¹².

There is no relationship between public and private schools. In previous years, private schools did not hold national entrance examinations and they usually enrolled students based on the public school entrance examinations. Private school teachers often have experience teaching in public schools. Some are retired public school teachers, others teach in both public and private schools concurrently. No specific figures were provided. The Law on Education allows schools to invite visiting lecturers. Both public and private schools may use visiting lecturers and facilities such as hospitals, research institutions and government employees ¹².

Table 2. 5. Number of private and public universities offering professional training programs in 2014 ¹²

Training programs	Number of universities*		Total
	Public	Private	
Medicine	15	2	17
Dentistry	7	0	7
Traditional medical doctor	1	0	1
Nursing	15	8	23
Pharmacy	10	7	17
Medical technician	9	1	10
Public health	7	1	8

Source: Aggregated from (MOET, 2014).

**Note:* One university may offer some different programs

Many public hospitals are practice sites for public and private schools. Some clinical trainers in public hospitals also have contracts to teach clinical practice for both public and private schools, especially those in teaching hospitals. In 2009, The Ministry of Health has issued guidelines for cooperation between training institutions and hospitals for setting up practical

training for medical and nursing students²⁴. Table 2.5 sets out the number of universities, both public and private, that offer professional training programs in 2014¹².

The Ministry of Education and Training has issued level-four Classification of Education in Healthcare at Bachelor's Degree level at Circular No. 24/2017/TT-BGDDT (Table 2.6). Based on the disciplines permitted for training, higher education institutions actively develop training majors to meet social needs²⁵.

Table 2. 6. Level-four Classification of education in Healthcare at Bachelor's Degree level²⁵

No	Code	Training classification
Medicine		
1	7720101	Medicine
2	7720110	Preventive medicine
3	7720115	Traditional medicine
Pharmaceutical		
4	7720201	Pharmacy
5	7720203	Pharmaceutical chemistry
Nursing		
6	7720301	Nursing
7	7720302	Midwife
Nutrition		
8	7720401	Nutrition
Dentistry		
9	7720501	Dento-maxillo-facial
10	7720502	Dental prosthetic techniques
Medical Technology		
11	7720601	Medical testing techniques
12	7720602	Medical imaging techniques
13	7720603	Rehabilitation techniques
Public Health and Health Management		
14	7720701	Public Health
15	7720801	Health Organization and Management
16	7720802	Hospital Management

Challenges faced by health professions education institutions include: overcrowded classes and low tuition fees (compared with other countries in the Western Pacific Region). Training

institutions often lack sufficient teaching hospitals that also lack Government budgets to implement training activities. Curricula and teaching methods also need to be updated. There are shortages of lecturers and limited opportunities for faculty to update their skills. Private institutions have thrived in recent years but the accreditation system and quality assurance mechanisms remain weak ¹². Implementation of regulations that transfer all junior college and secondary medical schools to MOLISA management, at first, is creating substantial disruption for both training establishments and students ²⁶.

2.2.1.3. Training programs

There are five levels of health professions education in Viet Nam: secondary, college, university, residency, first level specialist (CK1), second level specialist (CKII) and doctor of philosophy (PhD), which were delivered by medical and pharmaceutical universities, colleges or secondary schools. There are also research institutions offering PhD and masters programs ^{12,27,28}.

Three types of current education program are the official program (admitting baccalaureate candidates), the upgrading system (for those with work experience), in-service and continuing professional education. Figure 2.11 illustrated the comprehensive health professional education system ^{12,17}.

a. Official programs

The Ministry of Education and Training organizes an annual national entrance examination and manages the admissions and number of students at universities and colleges. The Ministry of Health regulates postgraduate specialist training programmes, including level 1 and level 2 specialist training and residency ²⁹.

Since 2015, the exam is reforming by combining the high school graduation exam and university and college entrance exams with six subjects: three compulsory subjects (mathematics, literature and foreign language) and three electives. Based on results of this exams, high school students will be selected for admission to universities, colleges and secondary medical schools ¹².

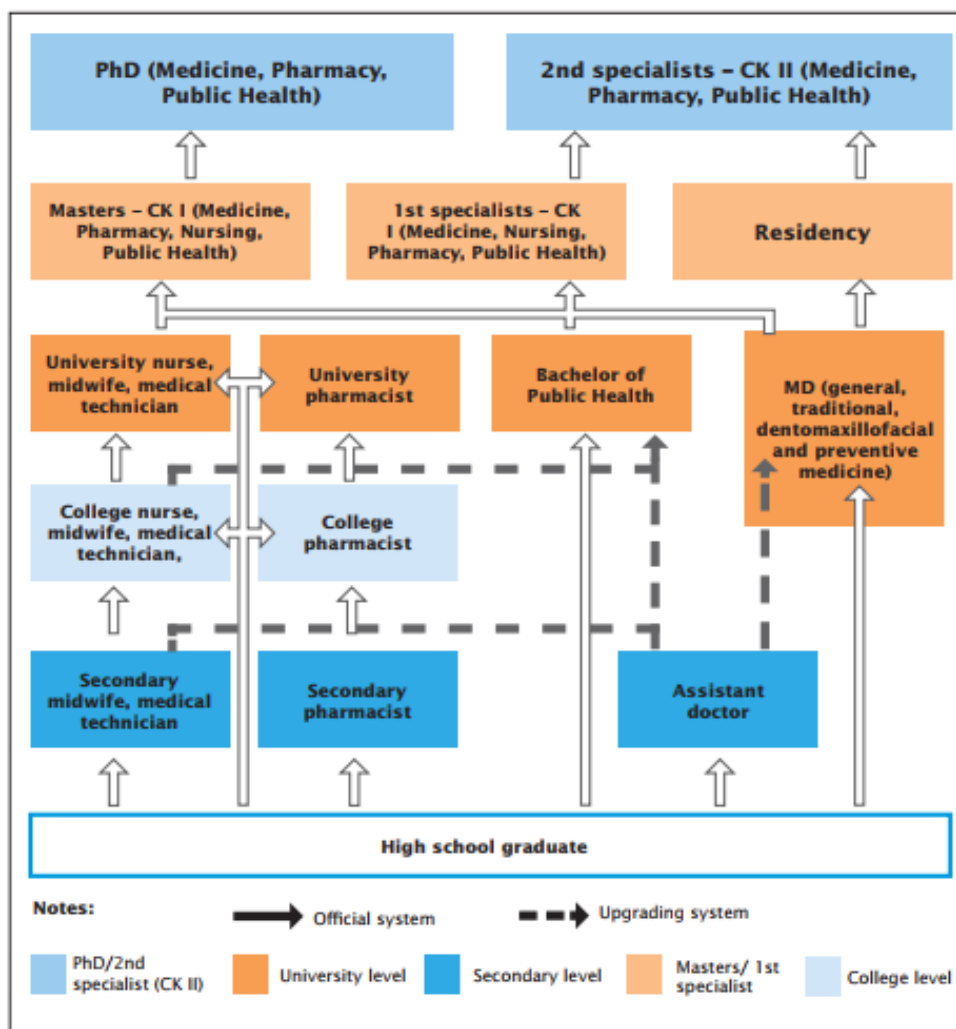


Figure 2. 11. Health professions education system ¹²

To strengthen human resources for grassroots-level, the Prime Minister issued a number of priority training policies, including nomination and demand-based training in parallel with annual official recruitments. *Nomination* means that students with good academic performance and satisfied based criteria can be nominated by the province to enroll medical or pharmaceutical universities, colleges or secondary schools without passing the annual entrance examination. These students often participate in a one-year pre-university programme before they can start the official programme ³⁰⁻³². *Demand-based training* is the enrollment of local contestants having entrance examination scores not too lower than the official passing scores of universities or colleges ³³. These recruitments are only applied to provinces/communes in disadvantage, extremely socio-economically difficult areas, in ethnic minority areas with few or no university-level staffs (under Program 135 of the State ³⁴⁻³⁶). After training, they commit to return to work for their local health facilities ³⁰⁻³³.

The training curriculum for each program is developed by training institutions based on needs assessment and the time allocated for each programme (university four to six years, college three years, secondary two years). The school's Science and Education Council reviews and approves these curricula. Previously, the Ministry of Education and Training reviewed and approved framework curricula but currently, this task is assigned to training institutions leading to varying degrees of competencies, knowledge and skills among graduates. Framework program and its

duration of official health profession training program vary from 2 to 6 years depending on levels and field of study (Table 2) ^{12,17,27,28}. Particularly for new graduations and for staffs before officially working in the health system, they must participate in practical training to granting licenses ³⁷.

Table 2. 7. Education and utilization of main health professions categories

Categories	Duration	Educational institutions	Main employers
Doctor			
Medical doctor	6 years	Medical/pharmaceutical universities or faculties of a university	Health services at all levels
Assistant doctor	2 years	Medical college and secondary medical schools	Mainly at CHS, some district hospitals
Pharmacist			
University pharmacist	5 years	Medical/pharmaceutical universities or faculties of a university	Hospitals and pharmaceutical companies at central and provincial levels
Secondary pharmacist	2 years	Medical and pharmaceutical colleges, medical college, secondary medical schools;	CHS, district hospitals, private drug stores
Medical technician			
University medical technician	4 years	Medical and pharmaceutical (or technological) universities,	Laboratories, imaging departments of central and provincial hospitals, preventive health centers
Nurse and midwife			
University nurse	4 years	Medical and pharmaceutical university, Nursing university, Nursing faculty of universities	Health services of central and provincial levels
College nurse	3 years	Medical and pharmaceutical university, Nursing university, Nursing faculty of universities, medical colleges	Central and provincial hospitals

Categories	Duration	Educational institutions	Main employers
Secondary nurse	2 years	Medical colleges, secondary medical schools	CHS, district hospitals and health centers
University midwife	4 years	Medical and pharmaceutical university, nursing university, nursing faculty of universities	Central and provincial hospitals
College midwife	3 years	Medical and pharmaceutical university, nursing university, nursing faculty of universities, medical colleges	Central and provincial hospitals
Secondary midwife	2 years	Medical colleges, secondary medical schools	CHS, district hospitals and health centers

The MOH has researched and proposed a model of health workforce training reforms, within which, medical training includes general and specialist doctors, with general doctors considered to have master's level qualifications, while specialists are considered to have PhD level qualifications ²⁶.

b. Upgrading program

Regarding upgrading system, under the provisions of the Law on Education, students graduating at a lower level and who have work experience can undertake further study to receive a higher qualification or second degree. This system offers those with professional qualifications the opportunity to advance from secondary to college or college to university. There are 2 forms of upgrading training: official training and study while working. University upgrading for studying while working does not applied for training of General Doctor, Traditional medical Doctor, Preventive Medical Doctor, Dentist, Pharmacist ^{12,38,39}.

Admission requirements for upgrading training are a diploma for completing high school or college in health sector ³⁸. Candidates applying for university upgrading program must participate in the annual university entrance exam. Those who have a secondary medical degree can take a separate entrance exam by training institution. The separate entrance exam is only applicable to those who have a practice license and the entry scores must reach minimum of 5 (five) points out of 10 for each entrance subject. ³⁸.

Training program and duration depend on current program of training institution ^{38,39}.

c. In-service and continuing professional education

The Law on Examination and Treatment (LET) requires that health practitioners have a license to practice. To maintain a valid license, a health worker must complete at least 48 hours of continuing education every two years. The Ministry of Health unifies operational management of CME for health professionals. The Ministry issues a circular which defines organization and appraisal of CME programs and issuance of CME certificates for participants. The Ministry of Health assigns the provincial health departments, medical and pharmaceutical training institutions, research institutes and central hospitals to appraise CME materials with advice from

an advisory council ^{12,26,37}. Most CME courses are conducted by public training institutions including medical and nursing schools and hospitals. However, continuing medical education (CME) courses are mainly implemented at the central and provincial levels and due to the lack of health workforce in some health facilities, commune health workers may not have opportunity to participate ^{12,33}.

If a health practitioner's license is revoked due to failure to meet the CME requirement, the health worker must submit her/his CME certificate to the licensing agency in addition to other documents, similar to the process of applying for a new license ^{12,37}.

2.2.1.4. Regulation and accreditation of health professions training institutions

Health professions education institutions operate under the provisions of the Law on Education and the Law on Higher Education. The Ministry of Education and Training and The Ministry of Labour, War Invalids and Social Affairs (hereinafter referred to as state educational authorities) manages educational administration for higher education and vocational training, respectively. After the Law on Vocational Training came into force in 2015, secondary medical schools have been under management of the Ministry of Labor, Invalids and Social Affairs instead of the Ministry of Education ^{17,18,20,40}. The Ministry of Health is assigned to control CKI, CKII, residency and continuing medical education (CME) programs. The Ministry of Health cooperates with the state educational authorities on education quality in medical universities, colleges and secondary medical schools. The Ministry of Health is responsible for developing the medical workforce's training plan, managing educational institutions under its authority and defining the criteria for issuing competency standards for each cadre. The Council of Rectors of medical and pharmaceutical universities and colleges advises the Minister of Health on policies, training plans and scientific research in health professions education institutions ^{12,21}.

Accreditation of educational institutions is stipulated in the Law on Education, the Law on Higher Education and the Law on Vocational Training. These laws regulate the organization and operation of accreditation bodies and request that all training institutions be accredited. Vietnam is developing an education accreditation system for all sectors and the Ministry of Education and Training has directed training institutions to conduct self-assessment before independent accreditation ^{17,18,20}. The Ministry of Health has developed accreditation criteria adapted from criteria in other countries and from international organizations. While programs are not currently accredited, there are plans to work towards a profession-based evaluation and accreditation of health profession degree program ¹².

There is no specific guidance issued by the Ministry of Health to assess training quality for pharmaceutical-medical universities/colleges^{41,42}. Although there are provisions in the Law on Education, currently Viet Nam has not implemented independent accreditation for health professions educational institutions but has just started internal evaluation based on the accreditation criteria of the Ministry of Education and Training ^{12,41}. Competency-based training and quality assurance of training facilities and curricula has not yet been effectively implemented due to limitations in guidelines, monitoring, supervision and evaluation ⁴³.

According to Decision No. 2054/QĐ-TTg (2013), the World Bank project on Health Professionals Education and Training for Health System Reforms was adopted to improve the overall quality of education of health workers through innovative approaches to teaching and learning focused on competencies and strengthening the quality assurance system in education.

The project is being carried out from late 2014 to 2019 and includes four components: (i) improving the quality of health worker education at the university and junior college levels through innovation of approaches to teaching and learning based on competencies and improve the quality assurance system in education. The project supports 31 universities and colleges so that doctors, nurses and medical staffs graduating from these establishments will have better competencies and skills to meet the current healthcare needs; (ii) improving capabilities for management and health workforce deployment; (iii) improving primary healthcare performance through training, ensuring uniform and required conditions and competencies for district and commune level health workers; and (iv) Project management ⁴³.

a. Accreditation mechanism applied in competency-based training

In Viet Nam, there is no regulation of qualification of doctors, nurses and midwives through the national examination for doctors, nurses and midwives. There are no standardized examinations administered during the degree programs as well as standardized exit examinations ¹².

Medical, nursing and midwifery education programs have frame curricula that define the subjects, duration and method of assessment of each subject and graduation exams. Students must complete all subjects and pass the graduation exams in order to receive a degree. Students take both theory and practical examinations to evaluate their knowledge, attitudes and skills ¹². However, there remains a lot of different factors affected the training quality of training institutions: training program, facilities, quality of lectures, input quality of students and especially how to implement training programs, assessment and evaluation students after finishing training program. To standardize the output standards of health training programs, from 2011, the MOH has developed and promulgated basic competency standards for medical healthcare workers, including nurses, midwives, general doctors, dental doctors, pharmacists and bachelor of public health ^{26,43-49}.

In 2015, The Ministry of Health and The Ministry of Home Affairs have issued the code and criteria for profession titles of healthcare workforce. Profession title shows the fundamental criteria, including professional qualifications and skills, of an employees in specific professional field, including: Doctor (3 levels) ⁵⁰, Preventive Medical Doctor (3 levels) ⁵⁰, Physician (1 level) ⁵⁰, Public Health (3 levels) ⁵¹, Nurse (3 levels) ⁵², Midwife (3 levels) ⁵², Medical Technician (3 levels) ⁵², and Pharmacist (4 levels) ⁵³ in healthcare system. These titles are considered as a basis standard for the recruitment and management of official staffs in state agencies ^{54,55}. Therefore, based on the demand for healthcare workforce, some regulations on health worker training will be adjusted to standardize these professions titles. For example, regulations on health worker training at secondary level have been adjusted to standardize the professions of nurse, midwife and medical and pharmaceutical technicians, which requires that they have qualifications of junior college or higher ^{26,52}.

b. Accreditation mechanism applied in assurance of training facilities and curricula

Mechanism and frequency of updating curricula

The Law on Education stipulates that the Ministry of Education and Training is responsible to review and approve the curricula for all fields of study. Training institutions submit their frame curricula to the Ministry of Education and Training for approval ¹⁵. However, the Ministry of Health guides the curriculum development process in the health sciences. The Ministry of Health assigns an expert group to develop the curriculum including representatives from several

disciplines of universities, colleges and secondary medical schools to review, examine and propose a new curriculum that fits requirements of human resource management agencies (including departments of the Ministry of Health). The curriculum is then reviewed by the Evaluation Board of the health sciences sector indicated by the Ministry of Education and Training and submitted to the Minister of Education and Training for approval. The frame curricula for medicine (six years), nursing (four years) and pharmacy (five years) were issued in 2001 and amended in 2012 ¹².

On the basis of the frame curricula, academic institutions develop a detailed syllabus specifying the study objectives, the content of each subject, student evaluation and assessment methods by subject and graduation exams. The Ministry of Health recently standardized training materials for most subjects in medicine, nursing, midwifery, pharmacy and medical technician programs. These materials are mainly developed by faculty members of the institutions who have experience and competence in each field ¹².

Accreditation mechanism applied in assurance of training facilities and curricula

Official program

The training curriculum for each program is developed by training institutions based on needs assessment and the time allocated for each program. The school's Science and Education Council reviews and approves these curricula. Previously, the Ministry of Education and Training reviewed and approved framework curricula but currently, this task is assigned to training institutions leading to varying degrees of competencies, knowledge and skills among graduates ^{12,18}.

Health professionals curricula in Viet Nam are mostly traditional: didactic in style and knowledge-based with lack of flexibility ¹². The contents of medical education quality accreditation have not yet been implemented. No effective mechanism is in place to ensure quality and uniform standards for the curricula used at different universities. Of particular concern is the lack of practical training. Standard outputs of new training curricula (competency-based training) have only recently been issued, and are not yet widely used to manage training quality ²⁶. These problems lead to low quality and uneven qualifications of new medical graduates.

To improve quality of practical training for health workers, decree stipulating the organization of practice training in the health sciences and circular promulgating guidance on training clinical teaching - learning methods for lectures in practical training of the sector has been issued ^{56,57}. The Ministry of Health has issued guidelines for cooperation between training institutions and hospitals for setting up practical training for medical and nursing students. Issues with the guidelines include unclear financial mechanisms and the need for clarity on qualifications of hospital teachers. The Ministry of Health is working with other government agencies to develop new regulations and guidelines and is seeking feasible financial mechanisms to facilitate cooperation between training and practicing institutions ¹².

Under regulations on quality accreditation and ensuring quality of education, all schools have implemented self-assessment and establish quality assurance units within schools. However, quality assurance in many schools remains superficial ³³. Human resources responsible for quality assurance at pharmaceutical-medical universities are limited, ranging from 2 – 8 official staffs (including those who take other job responsibilities). Quality assurance personnel have

only received short-term training on a few of the relevant contents such as standards and quality evaluation criteria, yet they lack training on monitoring, evaluation for development of standards for graduates. Most of the schools have no recurrent budget for this activity and lack software for systematic quality management ⁴³.

Upgrading program

In order to adapt with the new situation and resolve the situation of low quality of training in programs for upgrading skills in the health sciences, especially training of assistant doctors to become doctors, the Ministry of Health is developing a new circular guiding upgrade training from secondary medical school to university level. This circular will replace Circular No. 06/2008/TT-BYT used previously to guide recruitment into upgrade training and official letter No. 1915/BYT-K2DT dated 8 April 2013 ³³. Results of monitoring in 10 universities that provide training for students from disadvantaged areas or training to upgrade from lower to higher level degrees indicate a high share of their students are in these programs ⁴³.

In-service and continuing professional education

The Ministry of Health has issued guidelines for continuing education that stipulate required training duration as well as responsibilities institutions offering training activities ⁵⁸. Currently the CME network for health workers has been adequately developed to implement CME to update and strengthen professional qualifications of health workers. However, there is no mechanism to review and assess compliance ^{12,33}. Standardization of materials and instructors is a key step to ensure quality of CME. The MOH has appraised 25 CME training programs and materials of units under its direct management ²⁶.

2.2.2. List of universities for healthcare professionals

Table 2. 8. List of medical universities/colleges in Vietnam ^{59,60}

No	Name	Code training field
	<i>Medical universities/colleges in Hanoi</i>	
1	Ha Noi Medical University	7720101, 7720110, 7720115, 7720301, 7720401, 7720501, 7720601, 7720701
2	Vietnam Military Medical Academy	7720101
3	School of Medicine and Pharmacy – Vietnam National University	7720101, 7720201, 7720501, 7720601, 7720602
4	Ha Noi University of Pharmacy	7720201
5	Viet Nam University Of Traditional Medicine	7720101, 7720201, 7720115
6	Ha Noi University of Public Health	7720401, 7720601, 7720701
7	Thang Long University	7720301, 7720401, 7720701
8	Dai Nam University	7720201, 7720301
9	Hoa Binh University	7720201, 7720301, 7720115
10	HaNoi University of Business and Technology	7720101, 7720201, 7720301, 7720501

No	Name	Code training field
11	Western University Hanoi	7720201, 7720301, 7720601, 7720603
12	Thanh Do University	7720201
13	University of Science and Technology of Hanoi	7720601
<i>Medical universities/colleges in Ho Chi Minh city</i>		
14	School of Medicine - National University of Ho Chi Minh City	7720101, 7720201
15	Ton Duc Thang University	7720201
16	Ho Chi Minh City University of Medicine and Pharmacy	7720101, 7720110, 7720115, 7720201, 7720301, 7720401, 7720501, 7720502, 7720601, 7720602, 7720603, 7720701
17	Pham Ngoc Thach University of Medicine	7720101, 7720201, 7720301, 7720401, 7720501, 7720601, 7720602, 7720701
18	HO CHI MINH City University of technology	7720201
19	Hung Vuong University	7720802
20	Nguyen Tat Thanh University	7720101, 7720110, 7720201, 7720301, 7720601
21	Hong Bang International University	7720201, 7720301, 7720302, 7720501, 7720601, 7720603
22	Van Lang University	7720201, 7720301, 7720601
<i>Medical universities/colleges in North region (except for Hanoi)</i>		
23	Thai Nguyen University of Medicine and Pharmacy	7720101, 7720110, 7720201, 7720301, 7720501, 7720601
24	Nam Dinh University of Nursing	7720301, 7720302, 7720401, 7720701
25	Hai Duong Medical technical University	7720101, 7720301, 7720601, 7720602, 7720603
26	Hai Phong University Of Medicine and Pharmacy	7720101, 7720110, 7720115, 7720201, 7720301, 7720501
27	Thai Binh University of Medicine and Pharmacy	7720101, 7720115, 7720201, 7720301, 7720701
28	Tokyo Human Health Sciences University Vietnam	7720301, 7720601, 7720602, 7720603
29	Thanh Dong University	7720115, 7720201, 7720301, 7720401, 7720501,
30	Trung Vuong University	7720301

No	Name	Code training field
<i>Medical universities/colleges in Central region</i>		
31	Vinh Medical University	7720101, 7720110, 7720201, 7720301, 7720501, 7720601, 7720701
32	Vinh University	7720301
33	Hue University Medicine and Pharmacy	7720101, 7720110, 7720115, 7720201, 7720301, 7720501, 7720601, 7720602, 7720701
34	The School of Medicine and Pharmacy - The University of Da Nang (SMP)	7720101, 7720301, 7720501, 7720201
35	Da Nang University of Medical Technology and Pharmacy	7720101, 7720201, 7720301, 7720601, 7720602, 7720603, 7720701
36	Tay Nguyên University	7720101, 7720301, 7720501, 7720601
37	Buon Ma Thuot University	7720101, 7720201
38	Duy Tan University	7720101, 7720201, 7720301, 7720501
39	Dong A University	7720201, 7720301, 7720401
40	Yersin University	7720201, 7720301
41	Phan Chau Trinh University	7720101, 7720301, 7720601
<i>Medical universities/colleges in the South region (except for Ho Chi Minh city)</i>		
42	Can Tho University	7720203
43	Tra Vinh University	7720101, 7720110, 7720201, 7720301, 7720401, 7720501, 7720601, 7720602, 7720603, 7720701
44	Can Tho University of Medicine and Pharmacy	7720101, 7720110, 7720115, 7720201, 7720301, 7720501, 7720601, 7720701
45	Binh Duong Economics and Technology University	7720201
46	Binh Duong University	7720201
47	Dong Nai Technology University	7720301, 7720601
48	Mien Dong University of Technology	7720201
49	MeKong University	7720301, 7720601
50	Lac Hong University	7720201
51	Nam Can Tho University	7720101, 7720201, 7720601, 7720602
52	Eastern International University	7720301

No	Name	Code training field
53	Tan Tao University	7720101, 7720301, 7720601
54	Tay Do University	7720201, 7720301
55	Vo Truong Toan University	7720101, 7720201

2.2.3. Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians)

a. Health workforce supply

The health workforce – doctors, nurses, midwives, and pharmacists, among others – is critical to delivering quality health services, accelerating universal health coverage (UHC), and achieving the health-related Sustainable Development Goals (SDGs). Having a competent, multidisciplinary health workforce team to provide integrated, people-centered health services is necessary to meet the changing population needs in Viet Nam, including the rise of non-communicable diseases and aging populations. As Viet Nam embarks on health system reform, key components include building a qualified health workforce particularly at the primary care level, legislative and regulatory quality assurance mechanisms for the health workforce and medical universities, and adequate payment for health workers.

In Vietnam, there has been a rapid expansion in the number of health training institutions and graduate in the last two decades. The number of university training doctors has almost doubled since 1997, from nine to the current total of 17. The number of new doctors graduating yearly has increased from 3265 in 2006 to 9118 in 2017, an almost threefold increase in a decade.

In 2016, Viet Nam had an estimated 0.8 physicians per 1000 population, 1.4 nurses per 1000 population, and 0.3 pharmaceutical personnel per 10000 populations.

Currently, Viet Nam has more than 400 000 health workers in the public system. The health workforce consists mainly of doctors, assistant doctors, nurses, midwives, medical technicians, and traditional medicine practitioners. These professions account for 83.55% of all health workers (MOH, 2012). Other cadres include pharmacists, engineers, accountants, and technicians. Doctors, assistant doctors, nurses, and medical technicians account for 80% of the health workforce. These cadres require a license to practice under the provisions of the Law on Examination and Treatment (LET) (2011). The density of doctors in Viet Nam is 7.61 per 10 000 people (2013). The nurse-to-doctor ratio has increased from 1.19 in 2008 to 1.34 in 2012.

University degree programs for doctors include general practice, traditional medicine, and preventive medicine. With work experience, doctors can pursue specialization at level 1 (CKI) and then level 2 (CKII). A small number of newly graduated doctors with good academic performance may take selective examinations for training in a three-year residency program. These physicians are usually recruited to central hospitals. Table 2.9 provides an overview of

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https://www.who.int/vietnam/health-topics/health-workforce

health worker professional categories and the increase in the number of each between 2009 and 2013*****.

The density of doctors in Viet Nam was 7.34 per 10 000 people in 2012 and 7.61 per 10 000 in 2013 (Ministry of Health, 2013). The nurse-to-doctor ratio increased from 1.19 to 1 in 2008 to 1.34 to 1 in 2012. The number of employees in the health system has remained stable in recent years. Highly qualified human resources such as Ph.D., master, and specialists, work mainly at the national level including hospitals, research institutes, and universities. **Table 2.10** lists the number and cadre in health facilities at the province, district, and commune levels. Health workforce density has increased in recent years. Nurse density has risen faster showing the role of this cadre is gradually changing (**Table 2.11**).

Table 2. 9. Viet Nam Health Workforce 2009 – 2013 ¹²

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Health professional categories	2009	2010	2011	2012	2013
Medical doctor and higher	56 661	62 546	64 442	65 135	68 466
Pharmacist and higher	15 176	15 150	16 875	17 360	19 083
Bachelor of public health and higher	461	650	925	1065	1510
Assistant doctor	51 062	52 455	54 487	54 564	55 999
College and university nurse	2736	3748	5008	6114	7981
Medical technician	13 850	14 221	15 185	15 711	17 043
College and second degree pharmacist	38 136	43 090	48 598	43 090	44 328
Second degree nurse	64 901	70 359	76 787	80 312	83 369
University and second degree midwife	23 569	25 289	26 495	27 089	27 837
Elementary nurse	8254	7141	6224	5775	5339
Elementary midwife	1429	1249	1034	930	799
Traditional medical practitioner	269	264	219	237	229
Elementary pharmacist	29 353	22 805	21 329	22 805	22 561
Other bachelor degree and higher	15 551	16 544	18 206	19 816	21 752
Other second degree level	9766	11 785	12 844	13 414	14 294
Others	33 702	35 108	34 258	33 731	33 647
Total	364 876	382 404	402 887	407 148	424 237

Table 2. 10. Number of health employees by type at health facilities ¹²

Health professional categories	Total	Hospitals	District health centres	Polyclinics and specialized clinics	Commune health stations	Others
PhD in medicine	1668	1043	37	565	0	23
PhD in pharmacy	71	61	7	3	0	0
Masters in medicine	6052	5133	504	346	19	50
Masters in pharmacy	464	394	44	16	5	5
CKI and CKII doctor	20 132	15 235	3247	1016	463	171
CKI and CKII pharmacist	1051	634	156	241	16	4
Medical doctor	45 160	26 607	6778	3617	7848	310
Pharmacist	3771	2839	562	253	89	28
Bachelor of public health	2397	1365	653	101	245	33
Assistant doctor	62 012	18 394	12 929	2431	27 904	354
Assistant pharmacist	5324	2217	613	645	1787	62
Secondary pharmacist	23 640	12 318	3980	640	6594	108
Nurse	97 704	71 365	9936	3950	12 166	287
Medical technician	17 467	12 969	2767	974	612	145
Pharmaceutical technician	2170	1358	349	189	248	26
Midwife	28 893	12 500	4531	872	10 818	172
Traditional medical practitioner	3616	2270	490	128	625	103
Others	60 846	42 624	9353	2756	2982	3131
Total	382 438	229 326	56,936	18 743	72 421	5012

Table 2. 11. The density of doctors, assistant doctors, and nurses ¹²

Health professional categories	2008	2009	2010	2011	2012	2013
People per one doctor	1534	1518	1390	1378	1363	1315
Doctors per 1000 people	0.65	0.66	0.72	0.73	0.73	0.76
Doctors and assistant doctors per 1000 people	1.22	1.25	1.34	1.34	1.35	1.38
Nurses per 1000 people	0.78	0.88	0.94	0.99	1.04	1.07
University pharmacists/1000 people	0.15	0.18	0.18	0.19	0.20	0.21

Doctors account for 16% of health workers in the public sector and 38% of medical doctors are specialists (CKI, CKII, masters, and Ph.D.). Assistant doctors account for 13% of health workers in the public sector. The ratio of assistant doctors to medical doctors is 0.82 to 1. The density of assistant doctors and medical doctors was 13.72 per 10 000 population in 2013.

Nurses account for 23% of the total health workforce. However, secondary nurses account for 86% of all nurses, and elementary nurses account for 5.6%. Elementary nurse training no longer exists in Viet Nam. Nurses trained from colleges and universities account for 8.3% as these training programs started in the last 15 years. The ratio of college and university nurses to doctors is 0.12 to 1.

Midwives account for 6.7% of the total health workforce. Of these, 2.7% are elementary midwives, trained through a one-year program that no longer exists in Viet Nam. Most midwives are graduates from secondary programs. There are only a few university and college midwives as these programs started a few years ago. Pharmacists account for 15% of the health workforce, of which 70% are secondary pharmacists that graduated from a two-year program. The ratio of university pharmacists to doctors is 0.29 to 1.

As mentioned above, there are three levels of health professions training institutions: secondary schools, colleges, and universities. There are also research institutions offering a doctor of philosophy (Ph.D.) and master's programs. Viet Nam has 36 universities, 41 colleges, and 81 secondary schools training health professionals. Table 2.12 shows the distribution of health professionals training institutions.

Table 2. 12. Health professional training institutions in Vietnam by region

Regions	Universities	Colleges	Secondary schools
Red River Delta	15	10	13
Northern midlands and mountain areas	1	10	22
North Central area and Central coastal area	3	7	11
Central highlands	2	1	4
South East	12	5	22
Mekong River Delta	3	8	9
Total	36	41	81

(Source: Ministry of Education and Training, 2014)

The Ministry of Health and the Ministry of Education and Training agree on the standards of the student to faculty ratio for each health profession to set enrollment limits for universities and

colleges. Medical school facilities have not met the requirements of the Ministry of Education and Training as they lack lecture halls, offer limited library resources, and vary widely in terms of infrastructure, faculty qualifications, and professional practice environment among schools ¹². Nonetheless, the number of graduates across all health professions increased significantly between 2013 and 2018, as shown in Table 2.13 ^{1-4,6}.

Table 2. 13. Health professions graduates in university 2013-2018 ^{1-4,6}

HRH categories and level of training	2013	2014	2015	2017	2018
<i>Formal university programs</i>	<i>50,431</i>	<i>51,425</i>	<i>74,913</i>	<i>55,963</i>	<i>65,580</i>
General doctor	26,168	24,667	34,776	30,133	33,259
Traditional medical doctor	4,283	5,291	2,364	1,218	6,768
Dentist	2,701	2,896	2,874	2,836	3,200
Preventive medical doctor	3,202	3,487	3,764	3,744	2,981
University Pharmacist	6,691	6,631	15,499	7,485	7,897
University Nurses/Midwife	3,921	4,125	9,962	5,359	6,612
University Medical Technician	2,193	2,928	4,102	3,707	3,061
Bachelor of public health	1,272	1,400	1,572	1,481	1,802
Others	-	-	196	-	-
<i>Upgrading university programs</i>	<i>19,610</i>	<i>15,976</i>	<i>16,947</i>	<i>15,469</i>	<i>13,648</i>
General doctor	6,663	5,304	6,451	5,119	4,592
Traditional medical doctor	2,066	1,573	738	1,218	735
Preventive medical doctor	222	296	68	-	-
University Pharmacist	5,140	3,494	3,869	2,221	1,185
University Nurse/Midwife	3,824	3,470	3,782	4,563	5,280
University Medical Technician	806	948	1,119	1,380	967
Bachelor of Public Health	889	891	920	968	889
<i>Second enrolment</i>	<i>436</i>	<i>486</i>	<i>582</i>	<i>561</i>	<i>502</i>
University Pharmacist	436	436	443	433	359
Preventive medical doctor	-	50	139	128	143
Total	70,477	67,887	92,442	71,993	79,730

Quality of human resources training does not yet meet need. Health worker competencies have limitations, particularly at the grassroots level ²⁶:

- Circular 26 requiring nurses, midwives and technicians to attain junior college qualifications by 2025 will have strong adverse effects on supply of registered health workers at the

grassroots level unless measures are put in place to soften requirements or rapidly expand capacity for upgrade training.

- The remuneration policy for health workers is not achieving health sector objectives, it does not encourage highly qualified medical workers to work long-term in disadvantaged areas. Current incentives reward over servicing, rather than performance in keeping patients healthy.

The Comprehensive Plan for human resources development for the period 2012 – 2020 was issued by the Health Minister in 2012 with the overall goal to “Develop health human resources... contribute to improving quality of health and population work, and meet the need for protection, care and improvement of the people’s health with an orientation towards equity, efficiency and development.” The Comprehensive Plan also stipulated four specific objectives: (i) develop the health workforce in sufficient quantity and adequate quality, with an appropriate structure and distribution; (ii) improve the quality of health worker training to meet the needs of societal development and international integration; (iii) strengthen capacity for health human resources management; (iv) develop appropriate regulations, policies, work environment and remuneration package for health workers, particularly in mountainous, disadvantaged areas and areas with large ethnic minority populations, and in fields facing difficulties in recruiting personnel. The Comprehensive Plan also proposed five sets of solutions including: Reform and strengthen state management of health human resources; manage, deploy and retain health workers; train health workers; international cooperation and priority projects; and financial measures ⁴³.

b. Government policies encourage health workers to work in difficult areas

The Government promulgates policies to stipulate preferential medical benefits and attraction allowances (for communes facing difficulties under the 135 program) while attending joint school. Under the guidance of Decree 56/2011/ND-CP ⁶¹ and Circular 02/2012/TTLT-BYT-BNV-BTC ⁶², staff attends colleges and universities in nursing care, technicians, public health workers, due to the time under 3 months to go to school should not be subject to the regulation of these 02 circulars. Therefore, these subjects still enjoy their full salary, 70% preferential allowance according to health care profession (and an attraction allowance of 70% if they are working in difficult areas), as when they are working at the agency.

For health workers, medical staff, and military medical staff working at health facilities in areas with extremely difficult socio-economic conditions (under Program 135, phase II ³⁵), Decree 64/2009/ND-CP ⁶³ stipulates that health workers who have more than 3 months of study time (physicians attending the general practitioner program) are still entitled to 70% of the vocational preferential allowance. However, if leaving the attraction for more than 3 months, the attraction allowance will not be enjoyed.

For cadres, civil servants, public employees and wage earners in the armed forces working in regions with extremely difficult socio-economic conditions in poor districts according to Resolution 30a/2008/NQ-CP ⁶⁴, Decree 116/2010/ND-CP ⁶⁵ stipulates that 70% of the preferential salaries and allowances for commune officials are kept unchanged, regardless of the time, they leave the locality/ how long is going to school. However, the 70% attraction allowance will be cut if the subject moves out of the attraction for more than 1 month.

2.3. Status and Quality of Healthcare

2.3.1. Status of healthcare settings (number and national/private)

2.3.1.1. Healthcare system

a. Healthcare system before the implantation of center of disease control (CDC) model

Vietnam health care system comprises of four administrative levels: central level, provincial level, district level and commune level. Public health care sector widely coverage from central to grassroots levels ^{12,66}. In 2014, The MOH and Ministry of Home Affairs have issued regulation on re-arrangement of the service delivery organization system towards lean staffing, effectiveness, collaboration and continuity. The provincial preventive medicine network is being re-organized into a CDC model through merging centers with similar functions, and merging centers with inpatient beds into provincial hospitals as stipulated in Joint Circular No. 51/2014/TTLT-BYTBNV and Circular No. 59/2015/TT-BYT ^{67,68}.

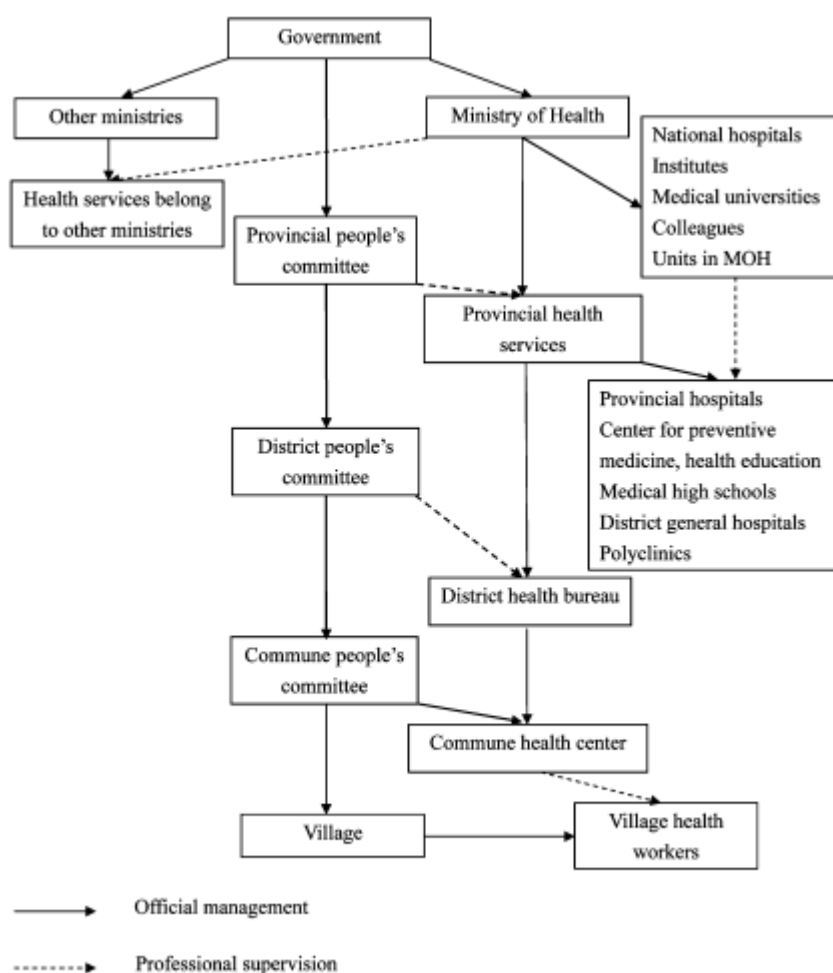


Figure 2. 12. Outline of the Vietnamese Health System before implementation of CDC model

Central level

The Ministry of Health of Vietnam, the governmental agency and the leading organization in central level, is responsible for the care and protection of people's health including issuing law and other legal documents for health care, health prevention and protection. This organization

also has duties in making long-term plans and strategies for the further development of the health sectors ⁶⁶.

Within the Ministry of Health, the Department of Manpower proposes HRH recruitment policy, salaries and incentives. The Administration of Science, Technology and Training (ASTT) proposes and supervises implementation of policies and regulations on health workforce admission and education standards. The Medical Services Administration (MSA) is in charge of licensing for HRH and health facilities ¹².

The Ministry of Health manages a number of health institutions including national hospitals, research and Pasteur institutes, universities and colleges. Most national general and specialty hospitals are concentrated in Hanoi and Ho Chi Minh City. These are the highest referral hospitals of the provincial hospitals in each region ¹². According to Health Statistical Yearbook 2018, there are 47 central health facilities with 31,436 beds. These facilities include 20 general hospitals, 20 specialist hospitals, 3 traditional medicine hospitals, 3 leprosarium's and 01 dermatological hospitals (Table 2.14) ¹.

The research institutes include Health Strategy and Policy Institute, Institute of Hygiene and Epidemiology, National Institute of Nutrition, National Institute of Occupational and Environmental Health, and Pasteur Institutes in Ho Chi Minh City and Nha Trang. Research institutes offer postgraduate education and provide preventive services. The health professional education institutions include several medical and pharmaceutical universities and medical colleges offering training programs. Most of these institutions are directly managed by the Ministry of Health. Most medical universities have training hospitals with about 200 beds to implement training missions, scientific research and health-care provision. Reliable data on university and college affiliate hospitals are not available ¹².

Table 2. 14. Number of health facilities and beds by levels in 2018 ¹

No	Types of health facilities	Number of facilities	Number of beds
1	Central level	47	31,436
1.1	General hospitals	20	20,681
1.2	Specialist hospitals	20	8,825
1.3	Traditional medicine hospitals	3	840
1.4	Leprosarium's	3	800
1.5	Dermatological hospitals	1	290
2	Local levels	12,517	279,790
2.1	Provincial level	470	138,780
2.1.1	General hospitals	164	93,682
2.1.2	Specialist hospitals	173	30,840
2.1.3	Traditional medicine hospitals	58	9,200
2.1.4	Leprosarium's	24	1,297

2.1.5	Sanatoriums and rehabilitation centers	27	3,075
2.1.6	Specialist clinics	24	686
2.2	<i>District level</i>	947	94,045
2.2.1	General hospitals	666	90,473
2.2.2	Inter-commune polyclinics	277	3,552
2.2.3	Maternity homes	4	20
2.3	<i>Commune level</i>	11,100	46,965
	Commune health stations (CHSs)/ Commune health centers (CHCs)	11,100	46,965
3	Facilities managed by other ministries	755	9,055
3.1	General hospitals	22	4,090
3.2	Polyclinics	7	320
3.3	Sanatoriums	11	2,880
3.4	Health center	5	1,765
3.5	Health station of other branches	710	
4	Private hospitals	228	21,122
	Total	13,547	341,403

Provincial level

Provincial, district and commune health facilities are under the competence management of the Ministry of Health and responsible for the implementation and development of health care services in corresponding level. In these levels, the people's committee is responsible for allocating finance and human resource, while provincial or district health department is responsible for professional competence under the supervising and monitoring of Ministry of Health. Provincial and district health department also have duties in supporting people's committee in corresponding level in term of health care and protection for people ⁶⁶.

Provincial health institutions include state-level departments of health, the medical services institutions such as general and specialized hospitals. The provincial hospitals usually have a size of about 500 beds. The specialized hospitals include maternity, obstetric, pediatric, traditional medicine, and tuberculosis and lung disease hospitals. The specialized hospitals are organized according to the population size of each province. In provinces with high population, some provincial regional hospitals are the referral level for neighboring district health centers. In 2018, there are 470 health facilities with 138,780 beds at provincial level. In which, these health facilities include 164 general hospitals, 173 specialist hospitals, 58 traditional medicine hospitals, 24 leprosarium's, 27 sanatoriums and rehabilitation centers and 24 specialist clinics (Table 2.14) ¹.

Provinces often also have specialized medical centers managed by the Department of Health in reproductive health, preventive medicine, HIV/AIDS prevention, forensics, eye disease,

communication and health education, and food safety and population agencies. These medical centers provide medical services as well as management of their specialty and have no inpatient beds. Each of the provinces usually has a medical college or secondary medical school offering programs in medicine, nursing, midwifery, medical technology and pharmacy according to the province's needs ¹².

Under the new regulation of health system reform, the provincial level has changed by merging centers with the same functions, merging specialized centers and centers with inpatient beds into provincial hospitals, or establishing specialized hospitals if necessary and when resources are available (Figure 2.14) ⁶⁷. This is a breakthrough in the organization of the preventive medicine system. By 2019, 56/63 provinces and municipalities are allowed to implement the CDC model at the provincial level. The organization of the local health system of other provinces is still under the review and approval process of the provincial people's committee ²⁶.

District level

District health centers offer medical and preventive services. In recent years, the structure of district health agencies has changed significantly in the provinces. Many districts have a management body along with medical services such as hospitals and preventive medicine centers. In addition, there are often other district agencies engaged in health, such as the population, food safety management agencies depending on the population size and local provisions ¹². Available statistic in 2018 indicates that there are total 947 health facilities with 94,045 beds at district level, including 666 general hospitals, 277 inter-commune polyclinics and 4 maternity homes (Table 2.14) ¹.

Under the new regulation of health system reform, district health centers should be organized consistently at the district level, performing the following functions: preventive medicine, medical examination and treatment, and rehabilitation. Regional polyclinics, maternity facilities (if any) and commune health stations in a district are under the management of the DHC. A separate General hospital will only be operated independently at district level when necessary with resources are available and must meet criteria for grade-2 or higher-grade hospital (Figure 2.14) ⁶⁷. By 2018, 52/63 provinces have apply dual-functions DHC model ⁴². The application of dual-function DHCs is suitable for the actual situation. It avoids scattered investment and consolidates human resources so that health workers can be mobilized, rotated and allocated flexibly between levels. It also increases the connection between preventive and curative care, and ensures consistent direction and guidance between district and commune levels ²⁶. The MOH has also developed and enacted Circular on the functions, tasks, authority and organizational structure of DHCs ⁶⁹.

Commune level

Commune health centers provided a range of basic services, such as: mother and child health care, family planning, treatment for acute respiratory infections, immunization and treatment of common ailments. About thirty years after the establishment of the health care system, an extensive network of commune health center has been structured throughout the country, based on population distribution and geographical condition. Although mountainous and remote areas are allowed more CHCs, some areas still lack of health care services, not only because of their difficulties in geographic issues, but also because of their lack of attractiveness for health workers ⁶⁶. Each CHS has 5–10 personnel relative to the population size. Large companies often

complement these services with primary health care clinics for their employees. In 2018, there are total 11,100 commune health facilities with nearly 47,000 beds ^{1,12}

The MOH has issued Circular No. 33/2015/TT-BYT guiding the functions and tasks of CHSs ⁷⁰. Earlier, the Government had promulgated Decree No. 117/2014/ND-CP on commune-level healthcare ⁷¹. So far 62 out of 63 provinces have regulations stipulating that CHSs are health facilities under DHCs ²³.

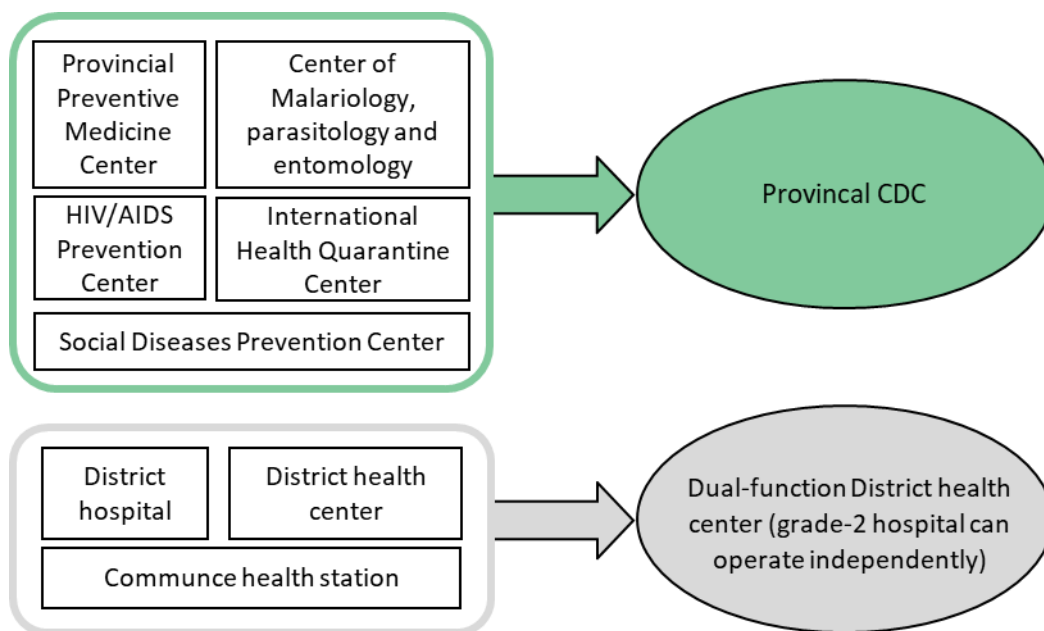


Figure 2. 13. Some changes to the organization of the local health system ⁶⁷

Limitation and challenges

While a series of decrees and circulars related to the local health system has been enacted, the health system development master plan has not yet been approved. A plan providing detailed guidance on the arrangement and organization of departments/divisions in local health facilities is needed. Policy documents on the functions, tasks and activities of provincial CDCs were issued after a long delay (Circular 26/2017/TT-BYT was issued on 26 June 2017). Reform of health system organization needs to be accompanied by detailed regulations on re-organization and re-arrangement of physical facilities, health human resources (recruitment and use of officials, civil servants, public employees, contracted staff), and operational and financial mechanisms (Figure 2.15). However, there are no specific guidelines on these contents ²⁶.

Figure 2. 14. Necessary regulations for re-organization and re-arrangement of the local health system ²⁶



b. Other sectors

Many sectors also have their own healthcare network of hospitals and clinics managed by Government agencies such as Ministry of Transportation, Ministry of Construction, Ministry of Industry and Trade and the Ministry of Agriculture and Rural Development. In 2018, there are 755 health facilities with 9,055 beds managed and funded by other ministries. These health facilities include 22 hospitals, 7 polyclinics, 11 sanatoriums, 5 health centers and 710 health stations (Table 2.14). The military health system is organized separately and not included in this report ^{9,12}.

Private health facilities started to thrive in the late 1990s and early 2000s when Viet Nam initiated economic reforms (Doi moi). This network includes hospitals and medical and maternity clinics. The network has developed mainly in highly populated urban areas. Private hospitals are usually licensed by the Ministry of Health and private clinics are controlled by the Department of Health. In 2018 there were 228 private hospitals with 21,122 registered beds, 2 times higher than in 2013 (9,500 beds) ^{1,2,12}.

c. The system of legal documents on health continues to be developed and refined.

Legal documents has been updated and completed in respond to health demands and challenges in the new situation. Table 2.15 has listed health-related Law promulgated by National Assembly from 1989 to 2020. In which, the Law on Blood and Stem Cells, Law on Population, Law on Transsexuals, Law on Health Insurance (amend), and Law on Medical Examination and Treatment (amend) have been drafted and will be submitted for promulgation in the coming time ^{23,26}.

Table 2. 15. Development of legal documents in the health and related sectors

Ammend	List of health-related Law
1989	Law on People’s Health Protection
2005	Pharmaceutical Law
2006	Law on HIV/AIDS Prevention and Control
2006	Law on Donation, Removal and Transplantation of Human Tissues and organs, and Donation and Use of cadavers
2007	Law on Prevention and Control of Infectious Diseases
2007	Law on Prevention and Control of Domestic Violence
2008	Law on Health Insurance
2009	Law on Medical Examination and Treatment
2009	Law on the Elderly
2010	Law on Food Safety
2010	Law on People with Disabilities
2012	Law on Tobacco Control
2014	Law on Health Insurance
2016	Pharmaceutical Law (amend)
2016	Child Law
2019	Law on Alcohol Control
2020	Law on HIV/AIDS Prevention and Control (amend and supplement)
planned	Law on Blood and Stem Cells

Ammend	List of health-related Law
planned	Law on Population
planned	Law on Transsexuals
planned	Law on Health Insurance (amend)
planned	Law on Medical Examination and Treatment (amend)

Some shortcomings and challenges still need to be overcome in the health policy development process. During this process, although various information/comment collection methods were used, certain methods were found to be ineffective. The engagement of stakeholders involved in policy implementation (e.g. DOHs, health facilities) was limited, thus a number of enacted policies do not fully reflect reality. Feedback from legal document/policy drafting agencies to those providing comments has been inadequate; no official response to comments was issued to indicate which ideas were incorporated and which were not used and to provide a justification. This fails to meet the information needs of stakeholders. Regulatory impact assessment was not carried out uniformly, so policies and regulations that were issued face problems with feasibility in practice. Monitoring of implementation of health sector policies and legislation is limited, while some policies are not updated and/or amended in time ²⁶.

2.3.1.2. Health Information Systems

Health management information system, a powerful tool for managing, organizing and planning of the health care system in multiple levels, is necessary for the development of a health care system.

To form and standardize lists of indexes, indicators, codes in the whole system, The MOH has issued a set of shared codes for medical examination and treatment and health insurance reimbursement (Version 6), basic health statistic indicators in healthcare, regulation on dissemination of health statistical information ⁷²⁻⁷⁴. The management information software has been applied in the preventive health system, hospitals and health facilities by the MOH since 2008 ^{75,76}. The reporting regime applicable to provincial, district and communal facilities, the list of basic indicators and statistical forms decentralized by levels has officially promulgated by the MOH since 2014 ^{77,78}. At the present, this network has basically covered across the country through the regular reporting system conducted from village health workers to the central level. To reduce paper-based and manually report at grassroots level as well as ensure the quality of data for policy makers to inform planning and management, the MOH has implemented health information management system in commune health stations since 2017 ⁷⁹⁻⁸¹. Information has been disseminated in the form of publication such as the Health Statistics Yearbook, JAHR, etc. The Health Statistics Yearbooks are annually available in electronic format on the MOH website to facilitate user access. Some localities and units have websites to disseminate legal documents and health statistics.

To step up the application of information technology in administrative modernization with an aim to build an e-Government in health sector, the Ministry of Health has developed and carried out electronic medical statistics software; medical information portal software and other informatics systems serving as a basis for digital medicine. Public administrative services are provide online and maintained in parallel with national single-window mechanism. By the end of October 2019, the Ministry of Health has deployed 10 out of 24 administrative procedures on the national single-window portal ²³.

To improve management of examination and treatment services, The Minister of Health approves the Project to develop medical informatics system by smart technology for the period 2019 – 2025. A number of projects are being piloted, applied in practical situation for further improvement, including: Project Picture Archiving and Communication Systems (PACS) without film printing, National informatics management system of vaccination, Informatics management software of Infectious disease for commune health stations, electronic health records, developing telecommunication system for remote consultation and treatment. Transferring data of health facilities to the Data Reception Portal under the Health Insurance Inspection Information System of Vietnam Social Insurance to improve the efficiency of management and use of the health insurance fund ²³.

Difficulties and Challenges

Health data and information remain fragmented; each health unit deploys its own software, leading to low interoperability and inability to extract reports as requested by the MOH, leading to some work duplication and difficulties in data monitoring and management. There is still no unified platform for information technology to serve as the basis for integrating all databases needed for management of medical services, and to contribute to effective use of health insurance payment for medical services. Information technology applications in reporting and health statistics have been promoted, however there are no regulations on replacing paper-based reports with electronic ones ^{23,26}.

There are many indicators for monitoring different health sector issues. There is a lack of consensus on definitions of some indicators, lack of reliable information sources for some indicators, lack statistic information from private and other sectors, and delays in reporting or inadequate dissemination of data to allow for active use of the health management information system to improve health system performance. Data collection, processing, storage, transmission and dissemination are still done manually. In 2016, only 73% of provinces submitted the full set of completed statistical reporting forms. Statistics from administrative records have been exploited, but to a limited extent ^{23,26}.

Most information products are still simple, mainly tables, graphs and charts and are presented in the form of traditional publications, such as books, pamphlets and reports. There are not many products analyzing and forecasting factors affecting health activities or the health status of people ²⁶.

2.3.1.3. Health Financing

Formerly, health care services in Vietnam were freely provided by public health sector; however, after the health care reform in 1989, both public and private health sectors were participated in delivering health services; financial autonomy was implemented and user-fee for services was introduced. The provision of health care services directly impact on patients; high quality of health care services helps to improve treatment duration and diagnosis procedures; therefore, it contributes to reducing health care cost. In contrast, overuse of laboratory tests and high-technology equipment's for revenue generation led to increasing health care cost and producing more burden for out-of-pocket spending ⁶⁶.

The share of the state budget spent on health in 2014 is estimated to be 8.2%, an increase compared to 2010 when it was only 7.7%. According to data on implementing the draft health

sector budget for the period 2011 – 2015, state budget funding for health expenditures in 2011 – 2015 increased annually at a rate higher than the overall state budget expenditure (Figure 2.16)⁴³.

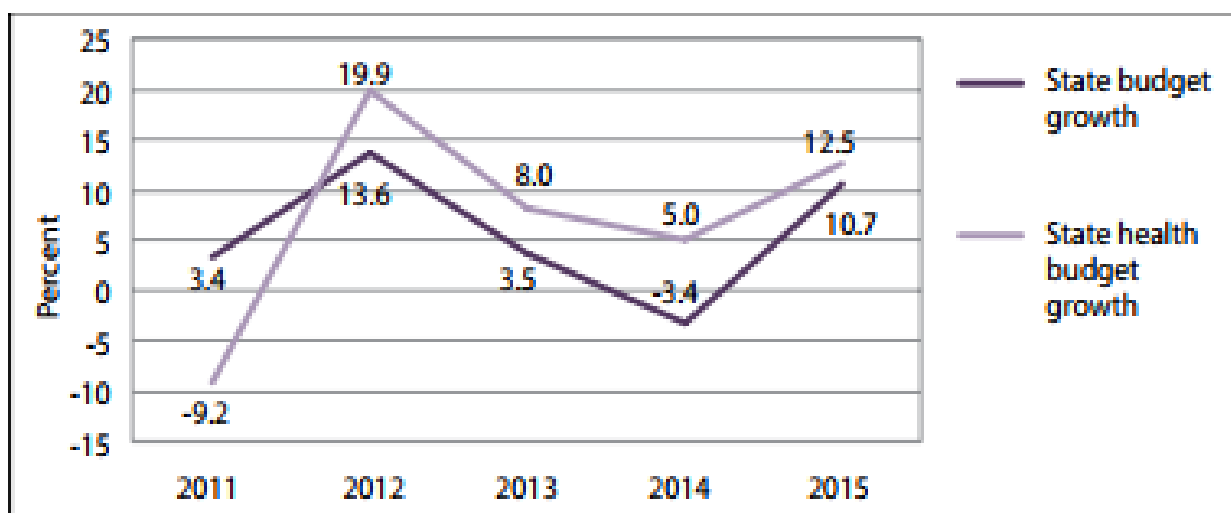


Figure 2. 15. Percentage increase in state budget allocations for health expenditure and overall state budget allocations, 2011 – 2015 ⁴³

According to data from the National Health Accounts 2012, state budget accounted for 27% of total health expenditures. Recurrent expenditure accounted for about 55% of total state budget spending, the majority of which is provincial spending. Funds from the state budget reserved for fully or partially subsidizing health insurance premiums for various entitlement groups defined under the Health Insurance Law accounted for less than 20% of total state budget spending on health. Among state budget allocations for health, funding for investment and development, including from government bond funding, fluctuated around 20% (Figure 2.17). Funds from government bonds were reserved for projects to refurbish health facilities ⁴³.

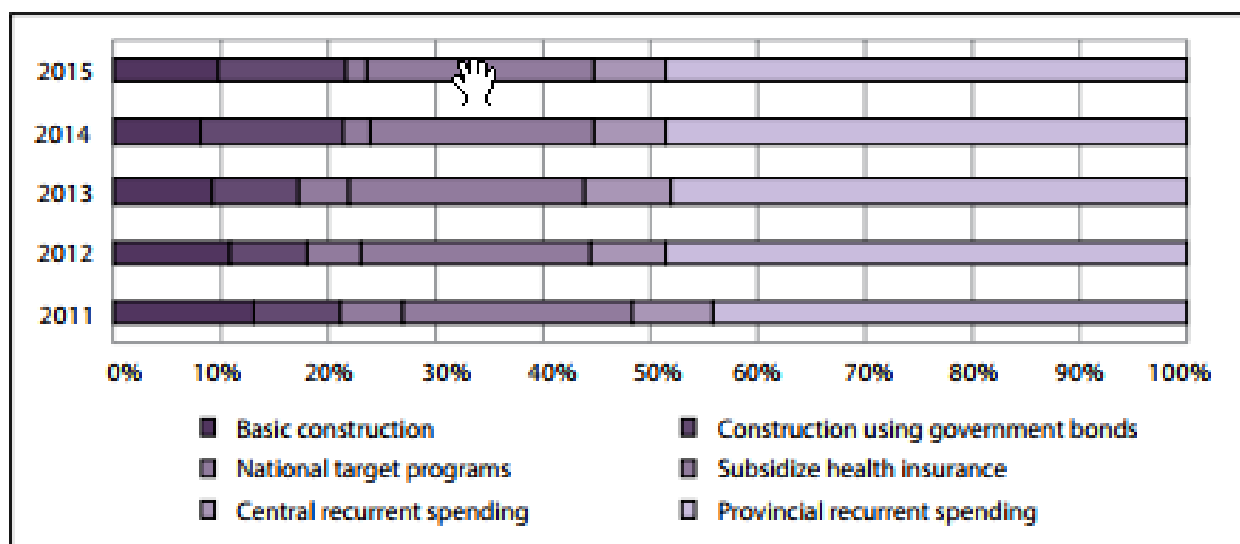


Figure 2. 16. Uses of state budget funding for health, 2011 – 2015 ⁴³

The increase in public spending on health has come from two main sources: domestic government spending on health and Social Health Insurance Expenditure. Between 2000 and 2016, per capita public spending on health in Vietnam grew at an average rate of 9.0 percent per year. Domestic government spending on health (known in Vietnam as “state budget spending on health”) accounted for the majority share of this increase, growing at an average of 10.4

percent per year. In real terms, total state budget spending on health increased from VND 25 trillion in 2006 to over VND 60 trillion in 2016 (Figure 2.18). The increase in per capita public spending on health was also bolstered by a notable increase in SHI expenditure, which increased annually between 2000 and 2016 at an average of 9.0 percent (Figure 2.19). External financing also contributed to the growth in public spending on health per capita, but only by a small amount⁸².

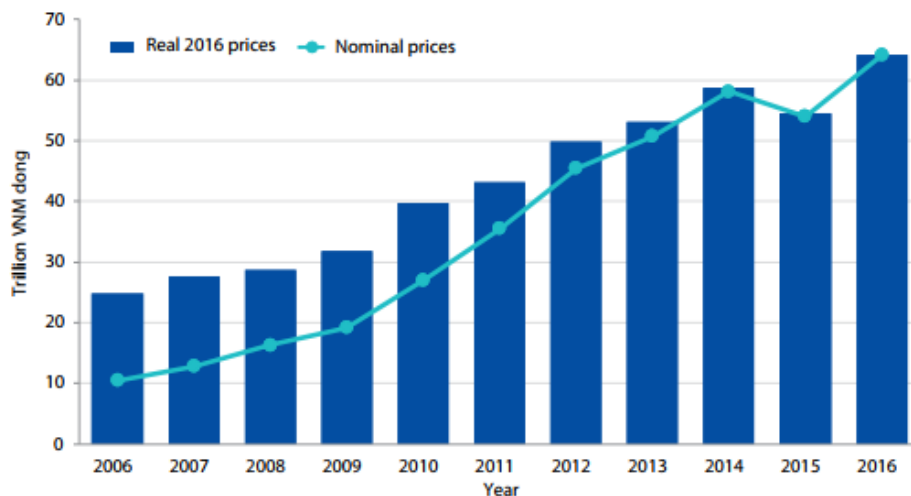


Figure 2. 17. Government Budgetary Spending on Health⁸²

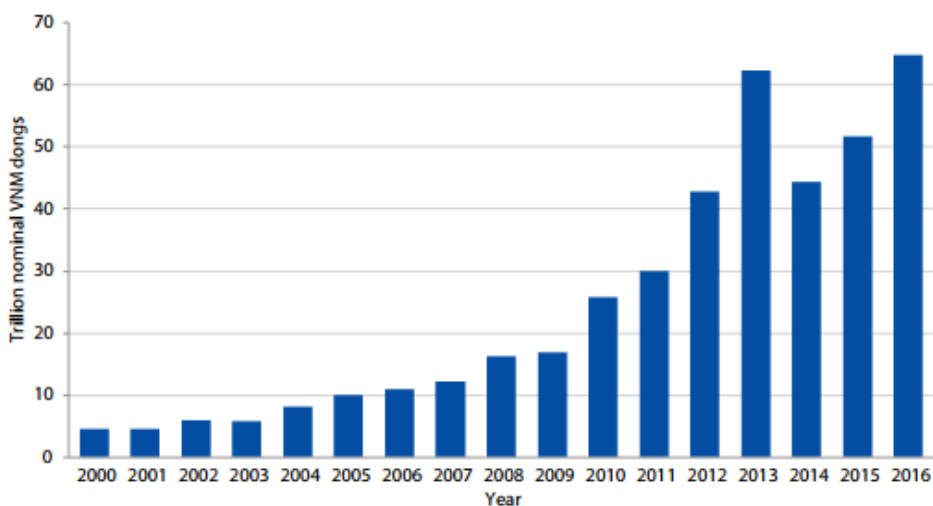


Figure 2. 18. Social Health Insurance Spending, 2000-2016⁸²

To realize the goal of universal health insurance coverage, the number of people covered by health insurance must increase and the health insurance premiums also must increase in line with increases in salary. Between 2010 and 2014 health insurance coverage increased 18.3% and the premium per cards increased by 75% (in current prices)⁴³. Figure 2.20 describes the increase in health insurance coverage from 2004 to 2018¹

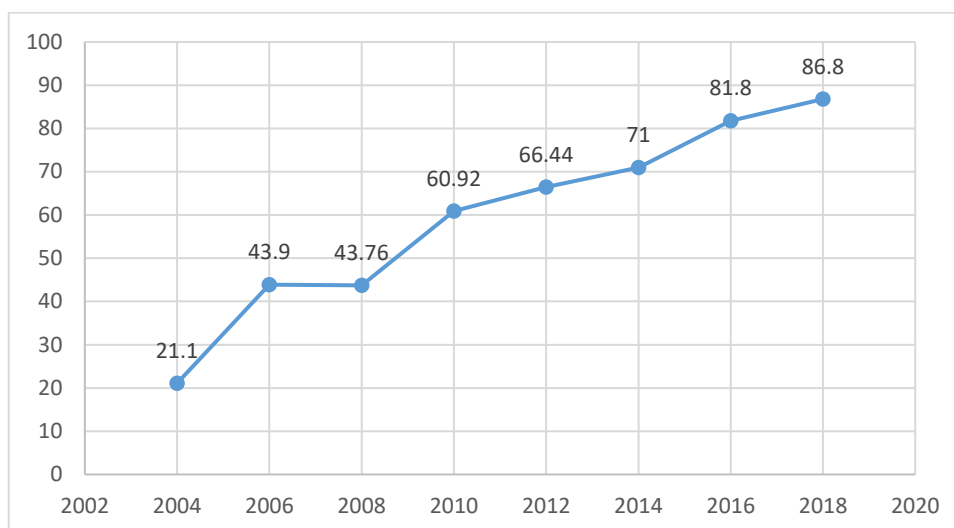


Figure 2. 19. Health Insurance participation from 2004 to 2018 (%) ¹

As becoming a middle-income developing country, the policy of ODA capital and concessional loans from foreign donors to Vietnam has changed dramatically, transforming from development aid to partnership. The proportion of ODA capital in 2011-2015 period for social-health activities remains small, accounting for 4.65% with a total loan of 1,292.3 million USD (in which, \$219.18 million USD aid). The reason for this situation is the sharp decline in non-refundable ODA. Along with that, it is difficult to use loans, especially concessional loans (high interest rates, short repayment periods, same conditions with commercial loan) because healthcare is considered as one of sectors with most programs and projects of low return ability. Meanwhile ODA loans with low interest rates, long repayment periods are now falling sharply⁸³. Under this context, the health sector is still striving to mobilize additional alternative external assistance funds. It has been maintained at about 1.5% of total health expenditure. Decree 38/2013/ND-CP of the government on the management and utilization of official development assistance (ODA) and concessional loans is expected to overcome previous problems related to ineffective management to enhance donors' confidence and willingness to invest ⁴³.

According to the 2019 summary report of the Ministry of Health, currently, 240 units (in which 29 units of the Ministry of Health) are assigned financial autonomy and self-guarantee for its recurrent expenditures. Many units, especially hospitals, have preserved autonomy of 80-90% its recurrent expenditures. 04 central hospitals (Bach Mai Hospital, Viet Duc Huu Nghi Hospital, Cho Ray Hospital, and K hospital) are in the pilot phase of financial autonomy for both investment and recurrent expenditure ²³.

2.3.2. Monitoring and evaluation of quality of healthcare (including international accreditation and certification)

a. Hospital quality management

The hospital quality management system is taking shape. The MOH established the office for hospital quality management in the Medical Services Administration in 2010 and issued Guideline on establishing healthcare services quality management in hospitals in 2013. According to this Circular, all hospitals would have to set up a system of quality management including quality management committee, quality management office/unit, and network of

quality management. The provincial health bureaus are responsible for quality management for the hospitals located in that province ^{43,84}

There is also still no independent agency with responsibility for medical service quality accreditation since no independent organization for quality certification under the Law on Examination and treatment and Decree No. 87/2011/ND-CP has yet been established ³³.

The Ministry of Health promulgated the pilot of Criteria Set of Hospital Quality under the Decision 4858/QĐ-BYT in 2013 ⁸⁵. Methods for quality assessment in hospitals have been reformed. In 2013, a set of hospital quality assessment indicators was issued and piloted. In 2014, this set of indicators included 83 criteria divided into 5 groups, with each criterion divided into 5 levels of performance. In total there are 1487 sub-categories of quality requirements hospitals are expected to implement. In 2014, some 1233 hospitals nationally have applied these criteria and had positive results and improvements in quality of services compared to 2013 ⁴³. After 3 years of piloting, the MOH has promulgated Decision No. 6858/QĐ-BYT dated 18 November 2016 on Vietnam Hospital Quality Criteria, version 2.0 as official tools to evaluate and improve the quality of hospitals ^{26,87}. The set of criteria includes 83 official criteria. The criteria are similar to version 1.0 but experience, amend and supplement the content of the criteria and upgrade the difficulty level from version 1.0. Many criteria are added with new and stricter requirements. The actual results have shown that these policies have gradually made contribution to increase the quality of the entire medical examination and treatment system, towards the people's satisfaction. In addition, reforming medical examination and treatment procedures; building Green - Clean - Beautiful medical facilities; innovation style and service attitude, actively conducting surveys on satisfaction of patients and medical staffs have contributed to the remarkable progress of the quality of medical examination and treatment in recent times.

In addition, according to Decision No. 6858 / QĐ-BYT dated November 18, 2016 of the Ministry of Health, clearly stating: "The set of quality criteria in Vietnam hospitals includes 83 quality criteria". Notably, out of these 83 criteria, there is no criterion referring to the word "international", but only defining the target of issuing this criterion "is a tool and a measure for the hospital to self-identify the position in the hospital system, through quality assessment, including self-assessment, independent assessment by regulatory agencies and quality accreditation organizations. And the general goal of promulgating this set of criteria is to step by step bring the hospital system into international integration. As such, the Ministry of Health does not have any specific criteria for determining a hospital with international standards in Vietnam.

Four hospitals in Vietnam have obtained JCI certification, including 3 hospitals located in Ho Chi Minh City: Cao Thang Eye Hospital, French-Vietnamese Hospital - FV Hospital, Vinmec International Hospital - Central Park; and Vinmec International Hospital - Times City in Hanoi

Annually, MOH as well as Provincial Department of Health develop and implement the plan of monitoring and evaluation of hospital quality under their management. For example, in 2018, MOH issued Decision No. 6328 / QĐ-BYT dated October 18, 2018 of the Minister of Health on promulgating contents of hospital quality inspection and assessment and survey of patient satisfaction and medical staff in 2018.

Quality management of medical examination and treatment:

The Ministry of Health issued Circular No. 19/2013 / TT-BYT dated 12/7/2013 on guiding the implementation of quality management of medical examination and treatment services at hospitals including Implementation content of hospital quality management, Hospital quality management organization system, Responsibility to perform hospital quality management.

In order to comprehensively improve quality management capacity of medical examination and treatment facilities, the MOH has promulgated Decision 4276 / QD-BYT dated 14 October 2015 on Approving the national action program on improving quality management capacity for disease examination and treatment facilities from now to 2025 with the aim to step by step develop and perfect the national system of quality management in medical examination and treatment, thus ensuring and improving the quality of medical services with 4 key component activities ⁸⁶:

- (i) Develop and gradually perfect legal framework, policy, and organizational system to enhance management of medical services' quality
- (ii) Develop and promulgate standards and tools for assessing and measuring quality of medical services.
- (iii) Promote the application of new methods and implementation of intervention programs to improve quality management capacity in medical services
- (iv) Raise awareness on strengthening management of medical services quality, gradually build a quality culture in health facilities.

On March 17, 2015, the Ministry of Health issued Circular No. 04/2015 / TT-BYT on the recognition of quality management standards of medical examination and treatment facilities. This Circular stipulates the recognition of a number of international standards and foreign standards for the quality management of medical examination and treatment establishments for application in Vietnam that include 1. International standards and foreign standards for quality management of medical examination and treatment facilities recognized by the International Society for Quality in Healthcare (ISQua) and recognized by the Ministry of Health to apply in Vietnam. This list is published and updated on the website of the Department of Medical Examination and Treatment and 2. The domestic standard for quality management of medical examination and treatment facilities has been recognized by ISQua

In addition, MOH develop and issue many guidance documents, regulations on quality management such as prevention of medical incidents; complete and supplement quality standards of surgical safety, the set of indicators for measuring the quality of medical examination and treatment services, and the set of clinical quality standards in the field of eye care; hospital infection control (including inspect and supervise the implementation of infection control, prevention and control of infectious diseases with pandemic risk, especially control of instrument handling Endoscopy, control of urinary tract infections due to catheter placement, infection monitoring, hospital environmental sanitation, infection control in anesthesia department, and Hand hygiene guidelines), etc.

The MOH has completed the development and is implementing documents guiding implementation of the Law on Examination and Treatment and the amended Health Insurance Law, is forming a system and issuing operational licenses for hospitals and other medical facilities and practice certificates for medical practitioners. Professional guidelines such as:

diagnosis and treatment guidelines and technical procedure guidelines have been developed and issued in large numbers. During the period from 2012 to 2014, guidelines for almost 4000 technical procedures were developed covering nearly all specialties. For the first time, professional guidelines were developed specifically for the commune level with appropriate professional contents, primarily in the areas of obstetrics, gynecology, emergency first aid, surgery, pediatrics and diagnosis and treatment for common conditions (MOH Decision No. 2919/QD-BYT in 2014).

However, the professional quality has not yet been evaluated nor is it tightly managed. The mechanism for clinical quality accreditation has not yet been implemented. The absence of mutual recognition of lab tests between medical facilities remains widespread. The number of clinical lab tests and diagnostic imaging services increases by about 10% per year⁴³. There is a lack of regulations and guidelines in management if a physician requests use of medical equipment for diagnosis and treatment, particularly for expensive equipment leading to difficulties in controlling rational and safe use of medical equipment, particularly in preventing abuse and protecting against financial burden on patients⁴³.

Management of competency and to license medical examination and treatment practitioners

Practitioner competency standards are being developed and applied. The nursing competency standards were developed by the Vietnamese Nursing Association and were approved and issued by the MOH with Decision No. 1352/QD-BYT in 2012, including 25 standards and 110 criteria. Competency standards for midwives were issued in Decision No. 342/QD-BYT in 2014. Standards for general practitioners were issued in MOH Decision No. 1854/QD-BYT in 2015⁴³.

The quality management system has been established, but is inconsistent and lacks mechanisms, regulations, and guidance to support and encourage the provision of quality services in a comprehensive manner (i.e. independent evaluation, grant of time limited practicing certificates, standard clinical guidelines, etc.). Medical examination and treatment results are not accepted/acknowledged among different health facilities, causing a waste of resources for people and society.²⁶

The development of the private health network is not commensurate with its potential, quality management in private health facilities faces many challenges.²⁶

The health sector continues to issue medical practice certificates and operating licenses following regulations under the Law on Medical Examination and Treatment (2009), Decree No. 87/2011/ND-CP, Circular No. 41/2011/TT-BYT and Circular No. 03/2013/TT-BTC. The Ministry of Health is developing an online system for issuing medical practice certificates through the internet, which is being piloted in six provinces in order to support this task and unify the management of issuing medical practice certificates, while also developing a national database of medical practitioners³³.

Progress in issuing medical practice certificates and operating licenses has been slow due to manpower difficulties for implementing regulations related to checking on potential criminal records of medical practitioners. The database system for registration and management of operating licenses and medical practice certificates has not yet been implemented nationally. Issuing of medical practice certificates and operating licenses one time for life, based solely on

a dossier without assessing practice qualifications or undertaking skills testing, without linkages with continuing medical education, does not ensure quality of medical professionals³³.

The quality of practitioners remains limited and there is no effective system in place to motivate practitioners to improve professional competencies for continuous professional development⁴³.

Laboratory quality management

The Ministry of Health has issued and implemented the Circular No. 01/2013 / TT-BYT dated 11/01/2013 on guiding the implementation of laboratory quality management at medical examination and treatment establishments. This Circular guides the content and responsibility for laboratory quality control at medical examination and treatment establishments with laboratories. This Circular takes effect from March 15, 2013. The Department of Medical Examination and Treatment is responsible to be the focal point organization to implement, inspect and assess the implementation of this Circular at affiliated medical facilities and localities and perform other tasks related to the quality management of medical examination at the medical examination and treatment facility as assigned by the Minister of Health. The Departments of Health of centrally-affiliated cities and provinces and the Health sector are responsible for disseminating, directing, inspecting and evaluating the implementation of this Circular at affiliated medical examination and treatment establishments and reporting to the Ministry of Health every 6 months.

In addition, the MOH has issued the national action program on improving lab test quality following Decision No. 3701/QD-BYT in 2010, which sets out the objectives and roadmap aimed at improving medical lab testing quality⁴³. MOH issued Decision No. 3148 / QD-BYT dated July 7, 2017 promulgating the list of tests applicable to interconnection and recognition of test results. Issued together with this Decision “List of tests applicable to inter-accreditation test results ”at medical examination and treatment establishments and medical establishments that test medical examination and treatment (collectively referred to as laboratories)

Furthermore, the medical laboratories at the medical examination and treatment facilities apply TCVN ISO 15189:2014, ISO 15189:2012 on Medical laboratories - Requirements for quality and competence.

For the medical and environment analysis laboratories at the preventive medicine facilities, beside TCVN ISO 15189:2014, ISO 15189:2012, they also apply ISO 17025 to manage their quality.

For micro-biological laboratories, they should apply the regulations on biosafety according to Decree 103/2016 / ND-CP dated 1 July 2016 on Regulations on ensuring bio safety at the laboratory. This Decree provides for biosafety conditions at establishments having laboratories working with microorganisms that are likely to cause infectious diseases to humans and patient samples capable of containing dangerous microorganisms. organizations causing infectious diseases to people of organizations and individuals (hereinafter referred to as testing establishments), including: Classification of microorganisms causing infectious diseases and testing establishments according to the level of biosafety; Biosafety conditions at testing establishments; competence, dossiers and procedures for new issuance, re-issuance and revocation of certificates of biosafety standards and announcement of biosafety standards testing

establishments; biosafety inspection; prevention, handling and remediation of biosafety incidents.

b/ Quality management for organizations in preventive medicine:

Before establishing Centers for Disease Control (CDCs) in provinces/cities, in order to manage the operation quality for organizations in preventive medicine, especially the provincial/City Preventive medicine Centers, MOH promulgated the Decision 633 / QD-BYT on guidelines for the implementation of "National Standard of Preventive Medicine Centers in provinces and centrally-run cities". There are ten activity area standards according to their tasks and functions, corresponding a set of 10 standards/Criteria, including:

Standard 1. Organizational apparatus and human resources,

Standard 2. The infrastructure,

Standard 3. Equipment,

Standard 4. Planning, finance, training, scientific research and network direction,

Standard 5. Infectious disease control,

Standard 6. Community nutrition and food safety and hygiene,

Standard 7. Activities for environmental health and school health,

Standard 8. Occupational health activities, prevention of accidents and injuries,

Standard 9. Prevention of malaria, parasitic diseases, endocrine diseases, metabolic disorders,

Standard 10. Lab activity.

Based these 10 standards, the activities of Provincial/City Preventive Medicine Centers can be judged and given scores. The total maximum scores are 100. When the Center gains 80% or more scores, it would be recognized as meeting the national standard for Provincial/City Preventive Medicine Center.

c/ Commune Health Stations (CHSs)

Commune health center provides necessary health care services for people at this root level, implements primary health care services such as: treatment for respiratory infections and provides services for mother child health cares including deliveries. To manage the quality of CHSs, MOH promulgated decision No. 4667 / QD-BYT dated November 7, 2014 on the national standards on commune health by 2020. There is a set of 10 standards/Criteria, including:

Criterion 1. To direct and administer health care work

Criteria 2. Human resources for health

Criteria 3. Infrastructure of CHSs

Criterion 4. Equipment, drugs and others

Criterion 5. Planning - Finance

Criteria 6. Preventive medicine, HIV / AIDS prevention and control, sanitation and food safety

Criteria 7. Medical examination, treatment, functional rehabilitation and traditional medicine

Highlights 8. Maternal and Child Health Care

Criterion 9. Population - Family planning

Criterion 10. Communication - Health education

The total scores of 10 criteria are 100. The commune will be recognized as meeting the national health criteria if it meets all the following requirements:

- Achieve 80% or more of the total score
- No "paralysis" score
- The score in each criterion must be at least 50% of the score of that criterion.

d/ Direction of Healthcare/preventive medicine Activities (DOHA)

Direction of Healthcare Activities (DOHA) - (Chỉ đạo tuyến in Vietnamese) literally means guidance line or level in English. The Ministry of Health in Vietnam has managed healthcare provision through a system known as the Direction of Healthcare Activities (DOHA) since 1961. This system requires health facilities at higher administrative levels to support those at lower levels to enable them to deliver medical services for local communities in primary care settings. The DOHA has two major missions ⁸⁹:

- To build a sound collaboration network and support system among health facilities, particularly those at higher and lower levels, to help ensure equity of health and deliver quality healthcare services to all Vietnamese people ⁸⁹.
- To address the burden of too many patients in higher level centers. This means supporting improvements in the quality of healthcare services provided at lower levels, particularly training and technical skills transfer activities to improve trust and respond to social demands ⁸⁹.

The DOHA scheme has accelerated the necessary up-skilling of healthcare at lower level public hospitals across Vietnam. These reforms are highly relevant for other countries with limited healthcare resources. Table 2.16 shows the six current areas of DOHA based on Decision 4026/QĐ-BYT in 2010 ^{89,90}.

Table 2. 16. Contents of DOHA based on the Decision 4026/QĐ-BYT by the Ministry of Health, Vietnam (2010) ^{89,90}

Structures	Contents
Supporting lower level hospitals to ensure medical services.	Survey the current situation at lower levels in terms of material facilities, equipment, human resources, professional capacity, training needs, technical exchange and others, supporting demands from lower levels. Build up and organize DOHA activity implementation for lower levels. Check the implementation process of professional regulations and the technical progress of lower levels. Provide feedback from referred patients, plus timely updates on current technical and professional errors, special diagnosis cases, and lessons learnt. Technical assistance given to lower level facilities upon request.

Structures	Contents
	<p>Coordinate with lower levels to build up a referral system across the assigned area.</p> <p>Coordinate with higher levels in the implementation of DOHA activities in the field of medical services.</p>
<p>Training and technical skills transfer for lower level hospitals.</p>	<p>Organize training and technical skills transfer courses for healthcare workers at lower level healthcare facilities. Support healthcare professionals from lower levels to practice and improve their professional skills at higher level facilities.</p> <p>Receive training and technical skills transfer support from higher levels.</p>
<p>Scientific research</p>	<p>Implement scientific research on professional knowledge and management of DOHA activities.</p> <p>Coordinate with higher levels and instruct lower levels in implementing scientific research activities.</p>
<p>Support for community health service</p>	<p>Coordinate with higher levels and instruct lower levels to implement community-oriented activities like primary healthcare services, environment protection, prevention of epidemic diseases, and national healthcare programs.</p> <p>Be ready to support lower level hospitals in the event of any disaster or social problems.</p>
<p>Regular meeting and review</p>	<p>Coordinate higher and lower levels to organize meetings, regular activities to draw out professional lessons, preliminary review, and final review for DOHA activities.</p>
<p>Role of Level I hospitals (central hospitals).</p>	<p>Assist the Ministry of Health in giving direction for professional knowledge, national professional and specialized network system development plan, and also coordinate with hospitals which have DOHA assignments.</p> <p>Build up training courses and implement them to help lower levels to develop their professional techniques and specialties to improve quality of emergency aid, diagnosis, treatment, and prevention.</p> <p>Build plans and give direction to healthcare services at lower level facilities to implement national and international programs.</p> <p>Check, monitor, and evaluate professional and technical activities of lower level facilities.</p>

Structures	Contents
	Organize annual review and summary, making regular and ad hoc reports on the results of DOHA activities nationwide to Ministry of Health.

Table 2 shows the laws and regulations related to DOHA, which have changed over time. DOHA was defined as one of the seven responsibilities of hospitals in the hospital regulation of 1997, the others being medical service, staff training, scientific research, prevention activities, international cooperation, and hospital management. In 2004, according to the “Instructions for strengthening DOHA activities in medical services”, the purpose of DOHA was to demonstrate the fulfillment of medical services for local people and guarantee equitable healthcare. The instructions included the importance of establishment of DOHA networks, covering central, provincial, district, and commune levels, and concrete implementation procedures such as planning and approval processes for DOHA and its budget. In 2009, the Law on Examination and Treatment stated that provision of guidance and support for use of medical technology to lower levels was part of the responsibilities of higher level hospitals ⁸⁹.

Table 2. 17. Laws and regulations related to the DOHA ⁸⁹

Government documents	Year	Reference	Title	Related documents
MOH Decision	1997	1895/QD-BYT	Hospital Regulation	
MOH Instruction	2004	09/CT-BYT	Instructions for strengthening DOHA activities in medical services	
Law	2009	2009/QH12	Law on medical examination and treatment	
MOH Decision	2010	4026/QD-BYT	Assignment of DOHA Activities in medical services	9/QD-BYT, 2004
MOH Decision	2012	5068/QD-BYT	Implementation procedures on training and technical transfer for health service packages under the 1816 project	1816/QD-BYT, 2008 (called 1816 project)
Prime Ministerial Decision	2013	92/QD-TTg	Approval of the scheme on hospital overload reduction (2013–2020)	
MOH Decision	2013	774/QD-BYT	Satellite hospital project (2013–2020)	

Government documents	Year	Reference	Title	Related documents
MOH Circular	2013	43/TT-BYT	Professional technical lists for each level of health facilities	
Prime Minister Decision	2013	14/QD-TTg	Implementation plan of term-limited rotation for medical practitioners in medical facilities	
MOH Circular	2014	14/TT-BYT	Regulation on referral among health facilities	
MOH Circular	Plan		Provision on DOHA in medical activities	

There have also been additional advantages of DOHA. It has, for example, improved the relationships between higher and lower level hospitals by promoting mutual understanding among staff. This will facilitate communication about patients and help to avoid unnecessary transfers. Collaboration among different level hospitals is part of DOHA's mission. DOHA also encouraged district and provincial hospitals to look at their own hospital services more critically and start thinking about how to improve the health service and provide more patient-centered care, as well as focusing on investment in applying new medical technologies themselves, through DOHA's technical transfer program ⁸⁹.

A limitation of DOHA has been difficulties in identifying the impact of DOHA activities. Various other factors, such as economic and infrastructural development, may have led to an increase in demand for sophisticated medical care and subsequent improvements in access to higher level hospitals. Despite DOHA's effort, it may be difficult to expect an immediate reduction in the number of patients being referred to higher level hospitals. However, monitoring the number of patients being referred to higher level hospitals will be necessary to help plan which areas of clinical training should be undertaken through DOHA ⁸⁹.

Although DOHA includes technical transfer training for medical doctors, training for managers and other healthcare providers should also be expanded. It was previously considered that nursing practice is simple enough for each provincial hospital to improve the quality of nursing by themselves. However, in order to deliver high-quality patient-centered care, all health professionals should be educated as members of an interdisciplinary team with professional communication and team collaboration. Training programs in patient safety, infection control, and nursing management (issues which are relatively recent in Vietnam) have now been conducted through DOHA and have included nurses and other health care workers. In the future, DOHA is expected to place more emphasis on these issues and provide greater opportunities to share good practice in Vietnamese healthcare ⁸⁹.

2.4. Status of international Public Health Agency

2.4.1. Status of public health center and relevant agencies, such as WHO office and other international organizations

2.4.1.1. United Nation and its agencies in Vietnam

a. United Nation comparative advantages

Viet Nam joined the United Nations on 20 September 1977. The UN's support to Viet Nam began with focus on war reconstruction and humanitarian assistance. In the past, the UN has been a major provider of ODA grant funds and Viet Nam has also been a beneficiary of knowledge transfer from the UN. Recognizing the rapid changes in the economic and development context of Viet Nam, the UN has been expanded towards strengthening institutions, policies, social protection, health, education, agriculture, and more ⁹¹.

The UN is not neutral in relation to values but is accepted as an impartial partner that works to serve member states “without fear or favor”. The UN offers objective and impartial development policy options drawing on collective global knowledge. The UN's provides unique resources which, if properly leveraged, will allow Viet Nam to respond more proactively to the changing country context ⁹², as follow:

- The UN, as an advisor, offers objective and evidence-based policy research and cutting-edge technical assistance. It also helps develop clear and practical approaches in support of the realization of the SDGs by promoting greater coherence in development cooperation across sectors and stakeholders, and supporting the Government's efforts to engage in effective dialogues that contribute to consensus building on the national SDG agenda and foster shared commitments.
- The UN can also support the emergence of inclusive governance processes, enforced by strong data management and monitoring mechanisms, which assist Viet Nam to effectively monitor national progress on achievement of the goals. In Viet Nam, the UN is benefitting from the co-location of most UN agencies in the Green One UN House in Hanoi. This offers a unique platform to provide multidisciplinary technical assistance and advice to national partners and a ‘one-stop shop’ for partnership connections, knowledge networks, global experience and access to the expertise of both resident and nonresident UN agencies.
- The UN advocates for results-oriented approaches to reducing inequalities and disparities of income and wealth, of access to opportunities and services and between different geographic regions and ethnicities, gender, sexual orientations and generations. A people centered, gender-sensitive approach, respecting human rights in line with principles and standards of the relevant international human rights instruments ensure that priority is given to the most vulnerable and disadvantaged. The UN's integrated programming actively promotes equity via non-discrimination, the empowerment of women and minorities, and a cultural, gender and child rights responsive approach.
- The UN has a unique responsibility in advocating for and advising the Government on critical issues on human rights, including civil, political, economic, social and cultural rights including the right to development. The UN also facilitates the engagement of multiple stakeholders in dialogue, which helps to convey the view of the population. It is the UN's essential role to promote and encourage respect, protection and enjoyment of human rights and fundamental freedoms to ensure more equitable development. In Viet Nam, this support

will include a focus on the realization of human rights commitments and of the human rights chapter of the 2013 Constitution. The UN will also continue to support the Government in reporting on the implementation of conventions, norms and other international obligations to which Viet Nam has committed.

- The UN's global presence in close to 180 countries, its knowledge networks of expertise at the global and regional level among all UN agencies operating in Viet Nam. Its linkages with partner institutes and governments on a wide range of topics offer opportunities for Viet Nam to learn from and share experiences with other countries. This includes enabling other countries in the global South to learn from Viet Nam's development successes, as well as supporting Viet Nam to strengthen international integration and to learn from other countries making (or having made) similar transitions.

b. The One Strategic Plan 2017-2021

UN in Viet Nam adopted the Delivering as One initiative since 2006 with One UN approach for greater harmonization and impacts of the UN operation in Viet Nam. The One Strategic Plan 2017-2021, is the 3rd generation of UN Development Assistance Framework (UNDAF) focusing on SDG implementation and representing the programmatic and operational framework for delivering UN support in Viet Nam ⁹¹.

Strategic Intent is "Inclusive and equitable quality social services and social protection systems are in place for people living in Viet Nam to be healthy, educated and free of poverty and to be empowered to reach their full potential". Outcome number 2 of this strategy is Equity in Health "By 2021, all people, particularly the most vulnerable, benefit from inclusive and equitable health systems, services and the promotion of healthy environments". The strategic Interventions of the UN are ⁹²:

- Generate evidence to monitor health trends, including the surveillance of diseases and emerging health issues, to aid the development of national health strategies, policies and plans, and monitor progress and accountability to achieving human rights and equity-based health goals, with a focus on the health-related targets of the SDGs and the unfinished MDGs, and the right to health in accordance with the obligations of international conventions and treaties.
- Promote and advocate for the development of equitable nutrition, health, water and sanitation, food security and food safety policies and innovative strategies and facilitate multi-sectoral policy dialogue to promote health-in-all policies. Address the social determinants of health and tackle the health impact of development, with particular attention to the poor and other vulnerable populations, and focusing on women and girls, starting from birth, to develop their full capacity to contribute to sustainable socio-economic development.
- Provide technical support to establish a resilient, responsive and transformative health system that will enable Viet Nam to ensure universal health coverage, including sexual and reproductive health, and deliver equitable health services, including through the adoption of effective health technologies. Such a health system will also help Viet Nam to prevent and control diseases in humans, animals and plants, promote healthy environments and respond to public health emergencies and development issues that impact on health, such as climate change, urbanization, industrialization, global integration and population migration.
- Provide technical and policy advice to support health authorities to prevent and control communicable and non-communicable diseases, develop novel and innovative programs to

- meet new demands, including aged care and environmental health, and address inequities and gaps in existing health programs, including early essential newborn care.
- Provide technical assistance in further building sustainable national capacities and partnerships to ensure public health security through preparedness planning, prevention, early detection and rapid response to emerging diseases and public health emergencies, and to strengthen implementation of the International Health Regulations (2005).
 - Convene, provide leadership and strengthen collaboration and partnerships across sectors to ensure a coordinated response in critical health matters, including public health security, health and nutrition emergencies, and the rights and needs of vulnerable populations.
 - Ensure the quality of health services by strengthening governance and regulations in the health sector and facilitating the dissemination of knowledge and adoption of international norms and standards.

c. World Health Organization (WHO)

World Health Organization (WHO) is a specialized agency of the United Nations responsible for international public health. Viet Nam has been a WHO Member State since 17 May 1950. WHO was one of the first United Nations agencies to support the Vietnamese health sector directly since the end of the war and reunification of the country. WHO established a country office in Hanoi in 1977 and a sub-office in Ho Chi Minh City in 2003. More than 50 WHO staff in the country office have played a central role in supporting the people and the Government of Viet Nam to improve health ⁹³.

Vision and mission

The founding vision of WHO is a world in which all people attain the highest possible standard of health and well-being. The WHO mission is to promote health, keep the world safe and serve the vulnerable. WHO works with a commitment to human rights, universality and equity, based on the principles espoused in the WHO Constitution.

Core functions of WHO include: providing leadership on matters crucial to health and engaging in partnerships where joint action is needed; shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge; setting norms and standards and promoting and monitoring their implementation; articulating ethical and evidence based policy options; providing technical support to catalyze changes; building sustainable institutional capacity; and monitoring the health situation and assessing health trends.

The mission of WHO in Viet Nam is to support the Government to achieve universal health coverage with all people having access to high-quality health services, within the context of the country's needs and challenges in transitioning to middle-income status.

In order to provide effective support, the WHO country office leverages the three levels of the Organization: to focus support where it can make a difference; to place the right people in the right places; to engage partners effectively; to enhance communications; and to improve operational intelligence.

The work of WHO in Viet Nam

WHO's work in Viet Nam is based National health policies, on the country's need for support strategies and plans of in implementing its national health policies, strategies and plans (NHPSP) to address key health issues and fulfill its commitment to the WHO Constitution and other

international health laws and treaties. Global and regional priorities as well as joint priorities with the United Nations further guide the work of WHO in Viet Nam. Providing the overarching framework is the 2030 Agenda for Sustainable Development, which was adopted at the United Nations General Assembly in September 2015.

All top-level decisions in the country come from the Communist Party of Viet Nam. In October 2017, the sixth plenary session of the 12th Party Central Committee adopted a new resolution, care and improvement of people's health (No. 20-NQ/TW). It updated the previous resolution of the 7th Party Central Committee Development in 1992. Incorporating findings from a stocktake of the implementation of the 1992 resolution and an assessment of the current situation, the new resolution includes set viewpoints and objectives of national health policy as well as major tasks and specific targets to achieve by 2025 and 2030⁹³.

Priorities of WHO in Vietnam

Priorities of WHO in Vietnam from 2018 to 2023 is to support the Government of Viet Nam in the following areas laid out in Resolution No. 20-NQ/TW:

a. Strengthening key health system functions to deliver the system objectives, towards universal health coverage

- Renovate fundamentally and comprehensively the training of human resources for health, meeting both ethical and professional requirements in conditions of proactive and active integration into the world.
- Renovate health financing to mobilize resources adequately and equitably for effective protection, care and improvement of the people's health, with the focus on vulnerable people, ethnic minority people, and people living in remote, mountainous, border and island areas.
- Increase domestic resources for prevention and control of priority public health conditions such as HIV/ AIDS, tuberculosis and malaria.
- Renovate the organization, provision and management of health care services, focusing on grassroots health system, commune-level health system serving as frontlines in disease prevention and health care.
- Raise the capacity of research and production of drugs and vaccines.
- Improve the quality of health care services, basically overcome the hospital overcrowding through strengthening of primary care level. Pay special attention to maternal and child health, especially in mountainous, remote, difficulty areas, border and island areas.
- Develop appropriate models for elderly care.

Through this support, Viet Nam will move the universal health coverage agenda forward and contribute substantially to WHO's global target of 1 billion more people benefitting from universal health coverage.

b. Building sustainable national capacities and partnerships to ensure public health security and safety

- Ensure public health security, strengthen and improve the effectiveness of detecting, preparing for and responding to the epidemic and public health emergencies.
- Urgently complete the system of standards and indicators on food safety.
- Implement synchronous measures to minimize negative impacts from environmental pollution and climate change on health.
- Ensure access to clean water and hygienic latrines.

- Synchronously implement measures to ensure traffic safety, labour safety, prevent and control accidents, injuries and occupational diseases.
 - WHO will also promote and facilitate policy and technical dialogue on antimicrobial resistance across sectors in Viet Nam. The Organization will provide strategic support for scaling up comprehensive and sustainable actions to tackle antimicrobial resistance and related specific pathogens.
 - Through this support, Viet Nam will contribute substantially to WHO's global target of 1 billion more people better protected from health emergencies.
- c. Managing effectively communicable and noncommunicable diseases of public health importance*
- End AIDS epidemic, reduce tuberculosis burden and eliminate malaria.
 - Firmly strengthen the vaccination system. Increase the number of vaccines in the expanded vaccination program in line with the budget.
 - Strengthen propaganda and mobilization to build a civilized, healthy lifestyle, keep good hygienic habits; eliminate backward practices that negatively affect health.
 - Increase excise taxes on goods harming health such as alcoholic beverages, carbonated drinks and cigarettes to limit consumption.
 - Synchronously implement prevention and control of noncommunicable diseases; focus on preventive medicine, improve capacity for screening, early detection and control of diseases; promote the management and treatment of noncommunicable diseases, chronic diseases, long-term care at local health facilities.

Through this support, Viet Nam will achieve its goal to extend life expectancy at birth to 74.5 years by 2025 and 75 years by 2030 and contribute substantially to WHO's global target of 1 billion more people enjoying better health and well-being. In addition, WHO will also support the Government to play an active role on the world stage and enhance the efficiency of international cooperation in global health.

CDC Vietnam:

The U.S. Centers for Disease Control and Prevention (CDC) began working with the government of Vietnam and local organizations in 1998 to build effective and sustainable public health systems. CDC provides technical expertise for evidence-based decisions to strengthen the capacity and infrastructure of Vietnam's national health systems. CDC works closely with Vietnam to address HIV, tuberculosis, and influenza, as well as to strengthen surveillance, laboratory systems, and workforce capacity to prevent, detect, and respond to disease outbreaks.

Global Health security:

Working closely with the government of Vietnam and other partners, CDC provides expertise and support across the 11 technical areas known as GHSA action packages, which help Vietnam build core public health capacities in disease surveillance, laboratory systems, workforce development, emergency management, and other critical areas. CDC focuses on providing support for early reporting of disease outbreaks, better infection and prevention control, increasing biosafety and biosecurity, and reducing illnesses and deaths due to antimicrobial resistance. Rates of antimicrobial resistance in Vietnam are among the highest in Asia. CDC supports Vietnam in tracking multidrug resistant infections in hospitals as part of the country's National Action Plan—a critical step in monitoring the spread of antibiotic resistant bacteria.

HIV and Tuberculosis

HIV is a leading cause of death and a health threat to millions worldwide. As a key implementer of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), CDC works with Vietnam to build a sustainable, high-impact national HIV response to accelerate progress towards the UNAIDS global targets to control the HIV epidemic. CDC provides technical assistance focused on innovation in program models, strengthened HIV laboratory and diagnostic capacity, and enhanced HIV surveillance, epidemiology, and program monitoring. Recent CDC-supported innovations include same-day antiretroviral (ARV) therapy initiation, multi-month scripting and dispensing of ARVs, and the introduction of recency testing to understand the dynamics of new HIV infections in Vietnam.

With tuberculosis (TB) as the leading cause of death among people living with HIV, CDC provides technical support to Vietnam's National TB Program. Areas of focus include improving efforts to find, cure, and prevent TB, HIV-associated TB, and multidrug resistant TB by strengthening the country's capacity to operationalize new and existing TB control tools, building the evidence-base for improved TB control and prevention, and using the evidence to guide data-driven decision-making.

Health Systems Strengthening

To maximize public health impact, CDC targets populations and provinces most at risk for HIV, improves access to HIV testing, and strengthens links to immediate treatment and ongoing care. CDC collaborates with provincial and national HIV programs to assure that provincial health bodies have the capacity to provide high-quality HIV clinical and technical assistance to HIV service delivery sites.

Laboratory Capacity Building

CDC supports strengthening laboratory quality management systems to accurately diagnose, monitor, and prevent HIV, TB, influenza, and other infectious diseases. These activities help Vietnam to develop national strategic plans, a public health reference laboratory network, and a biosafety and biosecurity system. CDC also supports scale up for HIV confirmatory services, routine viral load monitoring, and innovations such as recency testing and molecular diagnostics for TB. Implementation of an electronic laboratory information system at 32 HIV testing labs led to faster results and improved data quality.

CDC facilitates collaboration between human and animal health laboratories, ensuring that both can detect novel influenza viruses with pandemic potential. Annually, approximately 5,000 specimens from hospitalized patients in Vietnam are tested for influenza viruses and for seven other viral respiratory pathogens. Influenza A positive samples from humans and poultry are sent to the World Health Organization (WHO) Collaborating Center at CDC for further characterization and as candidate vaccine viruses.

Infectious Diseases

Infectious diseases can emerge without warning and quickly spread in our globally connected world. CDC works with Vietnam to strengthen community-level early warning and emergency systems. National-level public health emergency management has also improved through a network of five emergency operations centers. CDC and its partners conduct surveillance at sites along Vietnam's borders, including 60 live bird markets in 10 provinces and an animal

quarantine site at the border with China. Support for workforce capacity building is provided through hands-on technical assistance, laboratory and surveillance training, and the Field Epidemiology Training Program (FETP). Twenty-three FETP fellows have been trained.

Influenza

Vietnam is at high risk for emerging influenza viruses with pandemic potential. CDC has provided financial and technical assistance to improve Vietnam's preparedness since 2005. Notable achievements include the establishment of two National Influenza Centers, laboratory-supported active indicator surveillance for influenza like illness and severe acute respiratory infection at sentinel sites, laboratory-supported event-based surveillance for severe viral pneumonia, and laboratory-supported active indicator surveillance among poultry at live bird markets. In January 2019, Vietnam licensed their first human seasonal influenza vaccine. CDC, with the Partnership for Influenza Vaccine Introduction, is collaborating with Vietnam on a multi-year plan to vaccinate health workers.

(Source: <https://www.cdc.gov/globalhealth/countries/vietnam/>)

USAID in Vietnam

USAID works with Vietnam to become a prosperous, self-reliant, and independent country that contributes to international security; engages in free, fair, and reciprocal trade; and respects human rights and the rule of law. USAID programs in Vietnam bolster continued development by strategically focusing resources where they are needed most – to strengthen economic governance; expand access to quality higher education; control transmission of HIV/AIDS and address threats to global health security; improve the welfare of persons with disabilities; and address environmental challenges, including biodiversity conservation and dioxin contamination.

Over the past several decades, the Government of Vietnam has made remarkable strides in improving the health of the country's citizens. However, public health concerns have the potential to threaten sustained economic progress. The emergence of drug-resistant tuberculosis, ongoing outbreaks of highly pathogenic influenza in animals and humans, the continued threat of the HIV epidemic among key populations, fragile health systems, and human resource constraints could limit Vietnam's continued growth. Additionally, limited health services for vulnerable groups, including ethnic minorities, have led to significant gaps in service delivery, resulting in lower health indicators and reduced economic opportunities.

Under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), USAID manages large-scale activities to help prevent HIV/AIDS, as well as to treat and care for people living with the disease. In addition, in close collaboration with the Government of Vietnam and civil society organizations, USAID provides funding and technical support to prevent, detect and respond to avian and pandemic influenza and other emerging pandemic threats and combat neglected tropical diseases.

- A USAID co-piloted methadone program begun in 2008 has been adopted by the Government of Vietnam and transformed from a two-province model to a nationwide system of nearly 250 methadone distribution sites that serve 50,000 clients. In fiscal year 2018, USAID will no longer procure methadone for the program as the government takes over this important responsibility.

- USAID's support in combating highly pathogenic avian influenza has helped reduce the number of bird flu outbreaks in Vietnam from almost 2,000 in 2005 to an average of under 50 per year since 2011.

HIV/AIDS

USAID supports efficient and effective HIV interventions to reach and test key populations, including people who inject drugs and their partners, commercial sex workers, potential male clients of sex workers, and men who have sex with men, and to treat and retain those with HIV in antiretroviral (ARV) treatment. Community and facility based initiatives help to extend lives, improve health and increase quality of life for those infected and affected by HIV, while strengthening the broader health system in Vietnam. USAID works closely with the Government of Vietnam to ensure that health insurance and other local resources can pay for the national HIV response. Based on epidemiology and collaboration with the local government, USAID's HIV efforts support Vietnam's "90-90-90" goals (90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; and 90% of all people receiving antiretroviral therapy will have viral suppression) and are targeted in provinces within two geographic regions comprising over half of the epidemic – Hanoi and Quang Ninh in the Northern Economic Zone; and Ho Chi Minh City, Dong Nai, Tay Ninh and Tien Giang in the Ho Chi Minh City Metro area.

After support to successfully expand the methadone treatment program, USAID, through PEPFAR, continues to work with Vietnam to support a self-reliant national methadone treatment system and actively work with the government and in-country stakeholders to sustain HIV interventions through a strengthened health system.

In Vietnam, since 2005, PEPFAR has supported life-saving antiretroviral treatment for more than 71,000 people. In 2017, USAID procured ARV drugs for 55,500 HIV patients. Also, during 2017, nearly 44,000 people received methadone maintenance therapy with continued technical support from PEPFAR.

Influenza

While the number of reported influenza A(H5N1) outbreaks has decreased substantially in recent years, outbreaks of the virus in poultry and sporadic human cases continue to occur. A (H5NI) influenza still circulates and can cause fatalities. Influenza A(H7N9) virus in humans and animals has circulated annually in China since 2013, and provides another example of a potentially serious threat to public health and economic development. Since 2005, USAID-funded partners have worked nationally and in high-risk provinces to strengthen national and regional preparedness, planning, and multi-sectoral coordination to detect and prevent transmission of influenza and other zoonotic diseases. Working closely with the Government of Vietnam, USAID promotes early detection and warning of avian and human influenza outbreaks through improvements in national and community-based surveillance, and the development of a quick-response capacity. USAID's partners focus on the animal-human-ecosystem interface under a One Health platform, and have expanded the scope of work to encompass other emerging zoonotic diseases.

Emerging pandemic threats

USAID launched the Emerging Pandemic Threats 2 (EPT-2) program in 2014, which builds on the successes of earlier programs in disease surveillance, training and outbreak response. This program expands the operational platforms, institutional partnerships and knowledge base developed over the past decade by USAID's EPT-1 and Avian Influenza portfolios to pre-empt or combat newly emerging diseases of animal origin at their source, and to reduce the threat to human health. The EPT-2 program strengthens capacities in Vietnam and more than 20 focus countries in Africa and Asia to prevent, detect and respond to infectious disease threats. These are also key objectives of the Global Health Security Agenda (GHSa) and the International Health Regulations. Under GHSa, Vietnam is taking a leading global role in addressing zoonotic diseases, and with the support of USAID and other partners seeks to accelerate national and regional progress in achieving a world safe and secure from infectious disease threats.

EPT-2 is managed by USAID and implemented at the country level through a consortia of EPT-2 partners, with technical collaboration from the U.S. Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO) and the U.N. Food and Agriculture Organization (FAO).

Neglected tropical diseases

Under our neglected tropical diseases program, we are supporting the Vietnamese Ministry of Health's national deworming program and Vietnam's final steps in confirming the elimination of lymphatic filariasis, a parasitic disease that can damage a person's immune system.

(Source: <https://www.usaid.gov/vietnam/>)

2.4.1.2. Civil society organizations

The doi moi (renovation) of 1986 was a turning point in Viet Nam and marked a new period of relative openness, including to civil society. During the 1990s, a substantial number of international nongovernment organizations (NGOs) began operations in the country, alongside increased foreign investment. Vietnamese local NGOs have also existed since 1990, although organizations that fit an NGO profile are only a small part of civil society in Viet Nam⁹⁴.

One important milestone in Vietnamese NGO-government cooperation was the Grassroots Democracy Decree, passed in 1998. This decree opened the space for more active participation in decisions at the commune and village levels. Development-focused local NGOs are typically urban and fulfill various roles: service delivery, policy and law making, monitoring and holding officials accountable, and channeling citizens' concerns. A number of strong, local NGOs are regionally and internationally linked; however, the fragmented legal environment has allowed a level of laxity over which organizations are entitled to call themselves NGOs, including in application of the not-for-profit principle. From the mid-1990s, some research institutions, described as science and technology research organizations, also began to emerge within this category. However, a change in regulations in 2009 closed off areas in which independent organizations started by individuals were allowed to work. This curtailed one of the more dynamic spheres in Vietnamese civil society⁹⁴.

International NGOs have more of a technical, specialized service delivery role than in other countries, reflecting a complementary role they have carved out alongside government and mass organizations. This technical character is changing as international and Vietnamese CSOs become more interlinked, and as more civil society actions become permissible in Viet Nam. Many international NGOs now have strong networks with local organizations and are staffed by Vietnamese nationals; some are moving toward becoming Vietnamese NGOs. International NGOs in Viet Nam have, historically, not been critical of government; on the contrary, they typically cooperate closely with government and other local partners, including local CSOs ⁹⁴:

- COMINGO brings together key government ministries and other bodies to assist the Prime Minister in guiding and addressing issues relating to foreign NGOs in Viet Nam. It is a high-level body providing guidance, monitoring, and oversight for the implementation of laws and policies relating to the operations of foreign NGOs. It also considers the issuance, amendment, or withdrawal of international NGO permits (for operation, for establishing a project office, or for establishing a representative office) according to the regulations on the operation of international NGOs in Viet Nam.
- PACCOM was established by the Prime Minister to address questions relating to international NGOs. The VUFO president has been assigned as an executive member of the committee, and while VUFO bears the principal responsibility for aid mobilization and for relations with foreign NGOs, PACCOM's role includes facilitating administrative and legal aspects of international NGO registration and activities in Viet Nam and assisting local organizations in their relationships with international NGOs.
- VUFO is a nationwide, sociopolitical organization whose main function is to establish and promote friendly and cooperative people-to-people relations between Viet Nam and other countries. It also acts as the standing agency of the Committee for Foreign Non Governmental Organization Affairs and, therefore, has a role in mobilizing and enlisting material aid from peace, solidarity, and friendship organizations; humanitarian NGOs; corporations; and individuals in other countries with a view to contributing to socioeconomic development of the Vietnamese.

Until 2008, the NGO Resource Centre printed a hard copy directory of international NGOs, their projects, budgets, sectors, and locations of work. This is now available on the NGO Resource Centre website (www.ngocentre.org.vn/ingodirectory). There is no comprehensive directory of Vietnamese NGOs, but they may be contacted relatively easily through the sector working group and mailing lists associated with the NGO Resource Centre, through umbrella organizations, such as the Fatherland Front and VUSTA, or through government agencies, such as PACCOM. A directory, including a range of key local and international CSOs as well as development partners, was published in 2008 by the International Conference of New or Restored Democracies Movement and is available online ⁹⁴. According to vufo website, there are 153 civil society organizations in Vietnam, NGOs are currently active and have representative offices in Vietnam, of which there are 78 organizations with activities related to health.

No	Fields in healthcare	No. of CSOs*
1.	Health - Epidemics	8
2.	Health - Eye Care	8
3.	Health - HIV/AIDS	31
4.	Health - Nutrition	24

5.	Health - Primary Care	19
6.	Health - Reproductive	21
7.	Health - Training and Education	32
8.	Health - Water and Sanitation	27
9.	Health - Agent Orange	8
10.	Health - Disabilities	23

* 1 organization can participate in many fields

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PART III
OCCUPATIONAL SAFETY AND HEALTH FRAMEWORK

3.13. OSH Laws & Regulations

3.13.1. Major OSH laws & regulations and recent amendments:

a/ Labour Codes and OSH Law

- **Labour Code of the Socialist Republic of Viet Nam (1994):** Comprised of 17 Chapters and 198 provisions. Grants all persons the right to work in an occupation of their choice, and to improve their skills without discrimination on the basis of sex, social class, beliefs or religion. Prohibits all forms of forced labour, and provides for the right to strike in accordance with the law. Covers a broad range of labour matters including trade apprenticeship and training; the form and content of employment contracts and collective agreements; conditions of employment; social security and occupational health and safety. Specific provisions apply to women, young workers and disabled persons. Special terms are established for foreign organizations or individuals operating in Vietnam, foreigners working in Vietnam, and Vietnamese citizens working overseas. Requires that "the trade unions of the province" establish provisional trade union organizations at all enterprises currently operating without a trade union organization. Activities of such provisional trade union organizations shall be determined by the Government in conjunction with the Trade Union Federation of Vietnam. Sets out procedures for the resolution of individual and collective labour disputes.
- **Labour Code 2012 (10/2012/QH13) dated June 18, 2012 and entering into force as of 1st May 2013:** the Law replacing the Labour Code dated 23 June 1994, the Law amending and supplementing a number of articles of the Labor Code No. 35/2002/QH10, the Law amending and supplementing a number of the Labour Code No. 74/2006 / QH11 and the Law amending and supplementing a number of articles of the Labor Code No.84/2007/QH11. It comprised 17 Chapters and 242 articles, Chapter IX: Occupational Safety and Health including 20 articles
- **Labour Code 2019 (No. 45/2019/QH14):** This Labor Code will take effect from 1 January 2021, replacing the existing Labour Code No. 10/2012/QH13 (the *Labour Code 2012*). The Labour Code 2019 comprises 17 Chapters and 220 articles. Key changes under the Labour Code 2019 include: expanding the scope of the Labour Code; providing more flexibility in the renewal and termination of labour contracts; setting out, for the first time, the right of

employees to establish and join independent labour unions; setting out the requirement for employers with fewer than 10 employees to issue internal labour rules; increasing the cap on overtime hours; and increasing employees' retirement ages.

- **Law on Occupational Safety and Health (Law No. 84/2015/QH13).** This Law provides for measures guaranteeing occupational safety and health (OSH), policies and compensation for victims of occupational accidents and diseases; responsibilities and rights of organizations and individuals in respect of OSH and state management for OSH. Provisions on occupational accident and disease insurance prescribed in Section 3 Chapter III, Clause 4 Article 84, Point b Clause 1 and Point a Clause 2 Article 86, Articles 104, 105, 106, 107, 116 and 117 of the Law on Social Insurance No. 58/2014/QH13 shall expire from the date this Law takes effect (Article 92(2)).

This Law consists of 7 Chapters as follows:

Chapter I - General Provisions

Chapter II - Measures to Prevent and Control Hazardous Factors and Toxic Factors for Workers

Chapter III - Measures to Settle Technical Incidents Causing Occupational Safety and Health Failure and Occupational Accidents and Diseases

Chapter IV - Guarantee of Occupational Safety and Health for Special Workers

Chapter V - Guarantee of Occupational Safety and Health in Production and Business Establishments

Chapter VI - State Management of Occupational Safety and Health

Chapter VII - Implementation Provisions

b/ Documents attached to laws:

- **Gov. Decree No. 45/2013 / ND-CP** dated 10/5/2013 detailing some articles of the Labor Code on working time, rest time and OSH.
- **Gov. Decree No. 37/2016 / ND-CP** dated 15/5/2016 detailing and guiding the implementation of a number of articles of the OSH Law on compulsory health insurance for occupational accidents and diseases
- **Gov. Decree No. 39/2016 / ND-CP** dated 15/5/2016 detailing the implementation of a number of articles of the OSH Law: control of dangerous elements and harmful factors; reporting, investigating, reporting occupational accidents; organizing occupational safety & health Units, OSH Committee in enterprises; Occupational Hygiene profile for harmful factors, etc.

- **Gov. Decree No. 44/2016 / ND-CP dated 15/5/2016** detailing a number of articles of the OSH Law on technical safety inspection, OSH training, working environment monitoring, etc.
- **Gov. Decree No. 140/2018/ND-CP:** amending and supplementing some articles of **Gov. Decree No. 44/2016 / ND-CP** detailing a number of articles of the OSH Law on technical safety inspection, OSH training, working environment monitoring
- **Gov. Decree No. 95/2013 / ND-CP** dated 22/8/2013 regulating the sanctioning of administrative violations in the field of labor and social insurance, sending Vietnamese laborers to work overseas
- **Gov. Decree No. 88/2015/ND-CP** dated 7/10/2015 amending and supplementing some articles of Gov. Decree No. 95/2013 / ND-CP dated 22/8/2013 regulating the sanctioning of administrative violations in the field of labor and social insurance, sending Vietnamese laborers to work overseas.
- **Gov. Decree No. 110/2017/ND-CP dated 4 October 2017** on organization and operation of inspectorates in Labour, Invalid and Social affairs. This Decree provides for the organization and operation of agencies performing the inspection function of the Labor, War Invalids and Social Affairs sector; inspectors, specialized inspection officials, inspection collaborators of the Labor - Invalids and Social Affairs sector; responsibilities of agencies, organizations and individuals in inspection activities of the Labor - Invalids and Social Affairs sector

c/ Classification of legal documents by field:

*** Legal Documents on OSH organization:**

- **Law on Occupational Safety and Health (Law No. 84/2015/QH13):**
 - OSH state management organization (Chapter VI: STATE MANAGEMENT OF OCCUPATIONAL SAFETY AND HEALTH)
 - OSH organization at enterprise including the following organizations:
 - Occupational safety and health units (Article 72)
 - Health units (Article 73)
 - Occupational safety and health workers (Article 74)
 - Occupational safety and health Council/Committee (Article 75)
- **Gov. Decree No. 39/2016 / ND-CP** dated 15/5/2016 detailing the implementation of a number of articles of the OSH Law: **Articles 36, 37 and 38** regulations in details OSH organizations at enterprise

- **Decision No. 3079/QĐ-BYT dated 21 August 2008** regulations on organization and operation of OSH system in health care facilities:
 - A person responsible for occupational safety and health in case of health care facility having less than 60 staffs
 - Health unit
 - Occupational safety and health worker network
 - Establishing Occupational safety and health Council/Committee in case health care facility having more than 60 staffs

*** Legal Documents on Management of Working Environment:**

- Gov. Decree No.39/2016/NĐ-CP providing the sample of Working Environment Profile, the list of hazardous factors need to be monitored/checked in working environment, including:
 - Physical factors (micro-climate, e.g. temperature, humidity, air velocity; lighting, noise, vibration, electro-magnetic field, radiation, etc.
 - Dusts (different types, e.g. total and respiratory dust, silica, coal, talc, metal, cotton dusts, etc.)
 - Chemical factors (chemicals, toxic gases, etc.)
 - Psycho-physiological and ergonomic factors, e.g. physical and mental workload, ergonomic factors
 - Biological factors (virus, bacteria, gem, mold, etc.
 - Factors causing hypersensitivity and allergy
- Gov. Decree No. 44/2016/NĐ-CP detailing Working Environment Monitoring activity:
 - Period of monitoring harmful factors in the working environment: at least once/year twice/year when very hazardous factors exist, e.g. chemicals, radiation, etc.)
 - When the harmful factors exceed allowed limits under Decision 3733 BYT / QĐ dated 10/10/2002 and National Technical Regulations of the Ministry of Health, then take measures to correct immediately.
 - The measurement and inspection of the working environment must be carried out by qualified units in terms of material facilities, equipment and personnel's
 - Fee for Working Environment Monitoring is paid by employer.
 - Keeping records and profile at enterprise and at the organization doing WE monitoring

- Circular No. 19/2016/TT-BYT: Guideline on Management of Occupational Hygiene, hygiene and sanitary facilities (number of workers/rest room/bath room/tap water for cleaning hand.
- Circular No. 28/2016 / TT-BYT dated 30 June 2016 promulgating the sample protocol for confirming exposure to hazardous factors causing acute occupational diseases
- Joint Circular No.13/2014 / TTLB / BKHCN-BYT dated 9 June 2014 of the Ministry of Science and Technology – MOH guiding the implementation of radiation safety in health care facilities: technical requirements for radiation equipment; arranging rooms for placing radiation equipment; requirements for radiation protection for nuclear medicine; radioactive waste management;
- The joint Circular No. 58/2015/TTLT-BYT-BTNMT dated 31/12/2015 by Ministry of Natural Resources and Environment and MOH promulgated The Regulation on Medical Waste Management: all health care facilities must minimize waste, classify their wastes by sources in accordance with the regulations, not allow mixing hazardous medical wastes with living wastes; hazardous medical wastes should be treated safely before being discharged to the environment; and health care facilities should contract with units that are legally able to transport and dispose of waste or, when there is no local legal option, contact the local government for a solution.
- Circular No. 25/2012/TT-BYT dated 29/11/2012 by MOH promulgating the National Technical Regulation on biological safety and safe practice in laboratories, in which promulgates clearly on facilities, equipment, personnel of lab.; regulations on entering and going out the labs, provisions on safe practices in lab., provisions on decontamination and waste treatment, provisions on prevention, treatment and troubleshoot of the biosecurity in the biosafety laboratories at level I, II, III and IV.
- Circular No. 16/2018/TT-BYT dated 20/7/2018 by MOH promulgating Regulations on infection control in medical examination and treatment establishments
- Occupational Hygiene Standards and National technical regulations on occupational Hygiene:
 - Decision 3733 BYT / QD dated 10/10/2002 by MOH: promulgated 21 standards of occupational hygiene, 05 principles and 07 parameters of occupational hygiene.
 - QCVN No. from 21-30/BYT by MOH: National Technical Regulations on Permissible Exposure Limit Value of Microclimate, Lighting, Noise, Vibration, high Frequency and and industrial frequency Electro-Magnetic field, heat radiation

(replacing some standards of occupational hygiene promulgated by Decision 3733 BYT / QD dated 10/10/2002 by MOH)

- QCVN 02 : 2019/BYT- National Technical Regulation on Dust - Permissible Exposure Limit Value of Dust at the Workplace (replacing some standards of occupational hygiene promulgated by Decision 3733 BYT / QD dated 10/10/2002 by MOH)
- QCVN 03:2019/BYT - National Technical Regulations on Permissible Exposure Limit Value of 50 chemicals at the workplace (Acetone; acid acetic; acid hydrochloric; acid sulfuric; ammonia; aniline; arsenic and its compounds; arsine; benzene; n-butane; cadmium and its compounds; carbon dioxide; carbon disulfide; carbon monoxide; carbon tetrachloride; chlorine; chloroform; chrome (III) (type of compound); chrome (VI) (type dissolve in water) such as hexavalent chrome; chrome (VI) oxide; cobalt and its compounds; dichloromethane; copper and its compounds (dust); copper and its compounds (gaze, fume); ethanol; fluorine; fluoride; formaldehyde; n-hexane; hydro cyanide; hydro sulfide; zinc oxide; manganese and its compounds; methanol; methyl acetate; aluminum and its compounds; nicotine; nitrogen dioxide; nitrogen monoxide; nitro benzene; nitro toluene; phenol; Selen dioxide; Selen and its compounds; sulfur dioxide; toluene; 2,4,6 -trinitrotoluene; vinyl chloride; gasoline; xylene) (replacing some standards of occupational hygiene promulgated by Decision 3733 BYT / QD dated 10/10/2002 by MOH)

****Legal Documents on Management of Workers' Health***

- Circular No. 19/2016/TT-BYT by MOH: Guideline on Management of Occupational Hygiene and Workers' Health and Occupational Diseases. **Management of Workers'**

Health Activities include:

- Pre-employment Health Examination
- Periodic Health Examination
- Employment placement Health Examination
- Occupational Disease Detection
- Periodic Occupational Disease Examination
- First Aids for occupational Accidents/Injuries
- Medical examination/expertise for cases of occupational diseases and occupational accidents and injuries

- Development and management of workers' health records
- Etc.

➤

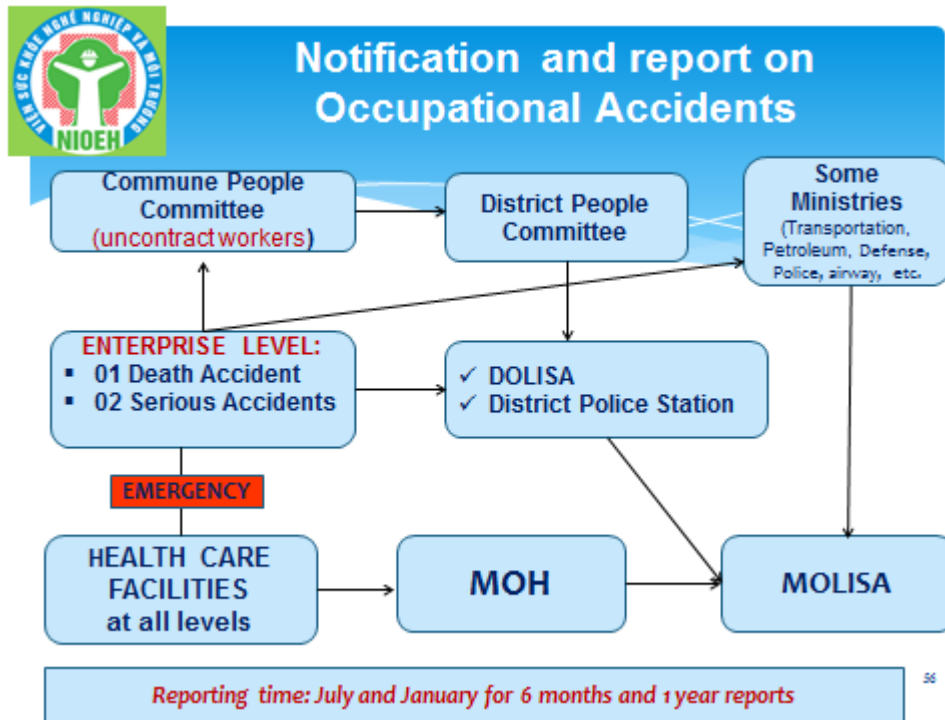
- Circular No. 14/2013 / TT-BYT dated 6/5/2013 of the Ministry of Health provides guidelines for health examination, content of health examination, conditions for medical examination establishments that are permitted to conduct health examination for Pre-employment Health Examination and Periodic Health Examination
- Decision No. 1613 / QD-BYT of August 15, 1997 of the Ministry of Health stipulates the criteria for classification of health and there are 5 levels of health classification (type I; very good health , II: good health, III: average, IV: weak health and V: very weak health)
- Circular No. 28/2016 / TT-BYT dated 30 June 2016 by MOH: Guidelines for management of occupational diseases: health examination before work placement, examination of occupational diseases, periodical occupational disease examination

*** *Legal Documents on Management of Occupational Diseases:***

- Circular No. 28/2016/TT-BYT dated 30 June 2016 by MOH Guidelines for management of occupational diseases: health examination before work placement, OD Detection and OD periodic examination
- Circular 15/2016/TT-BYT dated 15/5/2016 by MOH: Regulations on compensated occupational diseases: 34 compensated ODs; diagnosis and medical expertise criteria

*** *Legal Documents on Management of Occupational Accidents***

- Gov. Decree No. 39/2016/ ND-CP: detailing the implementation of a number of articles of the OSH Law: notification, investigating, reporting occupational accidents:
- Circular 08/2016/TT-BLDTBXH dated 15/5/2016 by MOLISA: Guiding the collection, recording, synthesizing, supplying, announcement and evaluation of occupational accidents and technical incidents causing serious OSH situation.



*** Legal Documents on compensation for workers getting Occupational Diseases and injuries:**

- ❖ OSH Law (2015): Section 3. Occupational accident and disease insurance regimes
- ❖ Circular No. 26 /2017/TT-BLĐTBXH dated 20/9/2017 by MOLISA: Stipulate and guide the implementation of the compulsory occupational accident and disease insurance regime
- ❖ Circular No. 04/2015/TT-BLĐTBXH dated February 02, 2015 by MOLISA, guiding the implementation of the regime of compensation, allowances and medical expenses paid by employers for workers suffering from occupational diseases and accidents:

*** Legal Documents on medical expertise for workers getting Occupational Diseases and injuries:**

- ❖ The Law on OSH: Medical expertise to assess the level of working ability decline
- ❖ Gov. Decree No. 37/2016/ND-CP: Medical expertise for workers detected ODs when they retired or no longer worked in occupations and jobs at risk of ODs
- ❖ Circular No.15/2016/TT-BYT dated 15/5/2016 by MOH: Regulations on compensated occupational diseases: medical expertise criteria of 34 compensated ODs;
- ❖ Circular No. 07/2010 / TT-BYT 05 April 2010 by MOH: Guiding the assessment of the working capacity decline of workers participating in compulsory social insurance

- ❖ Circular No.14/2016/TT-BYT by MOH: Detailed provisions for the implementation of a number of articles of the Law on Social Insurance in the health sector: stipulate that there are many types assessment dossiers for different assessment.
 - ❖ Workers suffering from OD or OA shall be assessed or re-assessed for their working capacity decrease in one of the following cases:
 - After having been injured or diseased for the first time, workers have been treated, but they still have health consequences;
 - After the injury or disease recurrence has been treated stably;
 - In case of OD & OA that cannot be treated to be in good health, workers should be under medical expertise before or right after the treatment process.

****Legal documents on female and adolescence workers:***

- ❖ Circular 26/2013/TT-BLDTBXH dated 18/10/2013 promulgating the list of jobs prohibiting female workers :

List of jobs prohibiting female workers: 38 jobs

1. Directly melting and pouring metal melting in the furnace: Electric arc furnace of 0.5 tons or more; Billo furnace (iron casting); Furnace (steel casting); High furnace
2. Rolling hot metal (except non-ferrous metals).
3. Directly processing non-ferrous metal ores (copper, lead, tin, mercury, zinc, silver).
4. Burning coke oven.
5. Welding in sealed containers, in the height over 10m above the working floor.
6. Drilling, exploding and mine explosion.
7. Rock exploiting on the mountain.
8. Etc.

List of jobs prohibiting female pregnant workers and having babies: 29 Jobs:

1. The work in the environment is contaminated by electromagnetic fields exceeding the allowable standards
2. Direct contact with sealed radioactive sources and open radioactive sources; work and interact directly with radioactive material in nuclear facilities....
3. Direct exposure (including: production, transport, storage, use) to insecticides, weed killers, insecticides, rodenticides, excluding chlorine containing organic chlorine and some chemicals causing gene modification and cancer
4. Etc.

- ❖ **Circular 11/2013/TT-BLĐTBXH dated 11/3/2013:** the list of light works in which workers under 15 years can work:
 - **List of works allowing workers under 13 years:**
 - ✓ Dancing; singing; circus; film; drama, traditional singing (tuong, cheo, cai luong), puppetry (except underwater puppetry).
 - ✓ Talented athletes: gymnastics, swimming, track and field athletics, table tennis, badminton, basketball, handball, billiards, soccer, chess, volleyball.
 - **List of works/jobs allowing 13 -15 years workers:**
 - ✓ The jobs using workers under the age of 13
 - ✓ Traditional works: ceramic glaze, sawing pearl shell, lacquer painting, paper making, conical hats, incense sticks, weaving mats, blankets, brocade weaving, rice noodles, make cake (vermicelli), make Ke cake
 - ✓ Fine arts and handicrafts: embroidery, fine art woodwork, horn combs, net nuggets, making paper pictures
 - ✓ Weaving, making household items, handicrafts from natural materials such as rattan, bamboo, coconut, banana, water hyacinth.
 - ✓ Silkworm farming.
 - ✓ Coconut candy package.

*** *Legal Documents on the List of heavy, hazardous and dangerous jobs***

- ❖ Decisions No. 1453 / LDTBXH-QĐ dated 13 October 1995; No. 915 / LDTBXH-QĐ (dated 30 July 1995); No.1629 / LDTBXH-QĐ (dated 26 December 1996); No.190/1999/QĐ-BLĐTBXH (dated 03 March 1999), No. 1580/2000/QĐ-BLĐTBXH (dated 26 December 2000), No. 1152/2003/QĐ-BLĐTBXH (dated 18 September 2003) (by MOLISA promulgating the lists of heavy, hazardous and dangerous occupations/jobs);
- ❖ Circular No. 36/2012 / TT-BLĐTBXH dated 28/12/2012 supplementing the list of heavy, hazardous and dangerous jobs /occupations.
- ❖ Circular No. 15/2016/ TT-BLĐTBXH dated 28 June 2016 supplementing the list of heavy, hazardous and dangerous jobs/ occupations.
- ❖ The health sector Decision No. 3033 / QĐ-BYT dated July 11, 2001 promulgating the list of heavy, hazardous and dangerous occupations/ jobs (for pharmaceutical production, there are 26 categories, for non-business units 27 category).

*** *Legal Documents on Allowance for workers***

- ❖ Article 14 of OSH Law regulates the in-kind allowances:
- Employees in contact with dangerous factors and hazardous factors at work shall be provided by their employers with in-kind allowances
- Principles of providing in-kind allowances are as follows:
 - Helping increase the resistance and detoxification of the body;
 - Ensuring convenience and food safety and hygiene;
 - Being provided during the working shift or day, except special cases
 - where employers cannot provide in-kind allowances to all eligible employees at the workplace.
- The Minister of Labor, War Invalids and Social Affairs shall prescribe the provision of in-kind allowances.
 - ❖ Circular 07/2005 / TT-BNV 5/01/2005 by Ministry of Internal Security: allowance for workers working in hazardous and dangerous works: 4 levels
 - ❖ Circular No. 25/2013 / TT-BLDTBXH (MOLISA) dated 18/10/2013: in –kind - allowance for workers working in hazardous and dangerous works: 4 levels

****Legal Documents on Machines, equipment, substances subject to strict requirements for OSH:***

- ❖ OSH Law (2015): Section 4; Management of machinery, equipment, supplies and substances subject to strict requirements for occupational safety and health:
 - Machinery, equipment, supplies and substances subject to strict requirements for Occupational safety and health are those which are likely to cause occupational accidents or diseases with serious consequences to people’s health and life despite appropriate transportation, storage, preservation and use for proper purposes during the working and production process as instructed by manufacturers.
- ❖ Gov. Decree No. 44/2016 / ND-CP: Detailing a number of articles of the OSH Law on inspection and accreditation of technical safety for Machines, equipment, substances subject to strict requirements for OSH
- ❖ Circular No. 53/2016 / TT-LĐTBXH dated 28/12/2016 of MOLISA promulgating the list of machines, equipment and substances subject to strict requirements for OSH.
- ❖ Circular No. 54/2016 / TT-LĐTBXH dated 28/12/2016 of MOLISA promulgated 30 procedures for technical safety testing of machines, equipment and substances with strict requirements on occupational safety

- ❖ Circular No. 16/2017/TT-BLĐTBXH dated 08/06/2017 Detailing some content of the technical safety testing for Machines, equipment, substances subject to strict requirements for OSH

****Legal Documents on PERSONAL PROTECTIVE EQUIPMENT:***

- ❖ Circular No. 04/2014 / TT-BLĐTBXH dated 12/02/2014 of MOLISA on PPEs for every Jobs/Occupations

****Legal Documents on Working time and rest time:***

- ❖ OSH Law (2015): **Article 25.** Working time under working conditions with dangerous factors and hazardous factors:

1. Employers shall ensure that the duration of employees' being in contact with dangerous factors and hazardous factors is within the safety limits established in the relevant national technical regulations and relevant laws.

2. The working time of employees performing heavy, hazardous or dangerous occupations or jobs must comply with the labor law.

- ❖ Labour Code 2012

- ❖ Decree No. 45/2013 / ND-CP dated 13 May 2013 of the Government stipulating some articles of the Labor Code on working time, rest time and OSH:

1. Normal working hours must not exceed 08 h/day & 48h/week.
2. Employers have the right to stipulate working hours or days or weeks: not exceed 10 hs/day & 48 hs/week.

The state encourages to work 40 hours a week.

3. The working time shall not exceed 06 hs/day for workers engaged in extremely heavy, hazardous or dangerous jobs on the lists jointly promulgated by MOLISA & MOH
4. Working Hours at night: from 22:00 to 6:00 the following day.

5. Working over time:

- * Not more than 50% of normal working hours in one day.
- * The total number of normal working hours and overtime shall not exceed 12 hours in a day;
- * No more than 30 hours in a month
- * A total of no more than 200 hours in a year, except for a number of special cases prescribed by the Government, which may be worked out for more than 300 hours in a year;

6. Resting time in working hours:

- Employees who work continuously for 08 hrs or 06 hrs shall enjoy at least 30 minutes of rest during the working time.
 - In the case of night work, the employee shall be entitled to a break of at least 45 minutes during the working time.
 - Apart from the break time, the employers shall set short breaks and inscribe them in the labor regulations.
7. Transfer to shift: Workers who work in shifts are entitled to a break of at least 12 hours before moving to another shift.
8. Vacation weekly:
- Each week, the employee is entitled to a minimum of 24 consecutive hours of rest. In special cases the employer shall have to ensure that the employee is entitled to one full month of leave at least 04 days.
 - Employers have the right to decide whether to arrange a weekly holiday on a Sunday or another fixed date within a week, but must record it in the labor regulations.
9. Annual leave:
- * 12 working days with full payment
 - * 14-16 days for workers working in hazardous, dangerous works

**** Legal Documents on Administrative Penalty for OSH violation:***

❖ OSH Law, Article 90. Handling of violations of OSH Law

1. Violators of the occupational safety and health law shall, depending on the nature and seriousness of their violations, be administratively handled or examined for penal liability; if causing any damage, they shall pay compensation and remedy consequences in accordance with law.
2. Persons who take advantage of their positions and powers to violate this Law or infringe upon the interests of the State, the lawful rights and interests of organizations and individuals shall, depending on the nature and seriousness of their violations, be disciplined or examined for penal liability; if causing any damage, they shall pay compensation in accordance with law.
3. Employers who shirk or delay the payment of occupational accident and disease insurance premiums, or appropriate occupational accident and disease insurance premiums and benefits for 30 or more days shall, in addition to fully paying the unpaid or late paid premiums and being handled in accordance with law, pay an interest at the rate doubling the average interest rate of the investment of the Social Insurance Fund in the preceding year on the amount of the

unpaid premiums and the late payment duration; if an employer fails to comply with this provision, at the request of competent persons, banks, other credit institutions or the state treasury shall deduct an amount from his/her deposit account to pay the amount not yet paid or late paid and interest thereon to the account of the social insurance agency.

4. The Government shall prescribe in detail acts of administrative violation in the field of occupational safety and health prescribed in this Law, and forms and levels of sanctioning applied to these acts

- ❖ Gov. Decree No. 95/2013 / ND-CP dated 22/8/2013 regulating the sanctioning of administrative violations in the field of labor and social insurance, sending Vietnamese laborers to work overseas
 - ❖ Gov. Decree No. 88/2015/ND-CP dated 7/10/2015 amending and supplementing a number of articles of the government's decree No. 95/2013 / ND-CP
1. A fine of between VND 5,000,000 and 10,000,000 shall be imposed on employers who commit one of the following acts:
 - Failing to periodically monitoring
 - Violation of National technical Regulations on OSH and OSH standards applicable to production, use, storage and transportation of machines, equipment, materials, energy, electricity, chemicals, plant protection drugs, technology changes, new imported technology;
 - Failing to prepare a plan on measures ensuring OSH for employees at workplaces when building, expanding or improving facilities for production, using and storing machines, equipment, materials and substances with strict requirements on OSH;
 - Not periodically inspecting and maintaining machines, equipment, workshops and warehouses according to regulations
 2. Fines shall not be imposed when not organizing OSH trainings for workers, job trainees or apprentices when recruiting by the following levels:
 - Between VND 1,000,000 and VND 3,000,000, for violations involving between 1 and 10 persons;
 - Between VND 3,000,000 and 5,000,000, involving between 11 and 50 persons.
 - Between VND 5,000,000 and 10,000,000, involving between 51 and 100 persons;
 - Between VND 10,000,000 and VND 15,000,000, for violations involving between 101 and 300 persons;

- Between VND 15,000,000 and 20,000,000 for violations involving 301 persons or more.

***Legal Documents on OSH trainings**

1. Gov. Decree No. 44/2016 / ND-CP: detailing the implementation of a number of articles of the OSH Law: training subjects, contents, duration and curriculum
2. **Gov. Decree No. 140/2018/NĐ-CP**: amending and supplementing some articles of **Gov. Decree No. 44/2016 / ND-CP** detailing a number of articles of the OSH Law on technical safety inspection, OSH training
3. Circular No. 19/2016/TT-BYT: Guideline on Management of Occupational Hygiene and Workers' Health and Occupational Diseases including first aid trainings, certificate training programs on working environment monitoring and occupational disease detection

3.1.2. Other related legislations on safety, health and environment, and recent amendments:

- **Vietnam Constitution in 2013 (Articles No. 20, 38):**
 - Everyone has the right to body inviolability, to be protected by the law in terms of health, honour and dignity; not subject to torture, violence, persecution, corporal punishment or any other form of treatment that infringes on the body, health, honour or dignity
 - Everyone has the right to health protection and health care, equality in the use of medical services and is obliged to comply with regulations on disease prevention, examination and treatment.
 - Any acts threatening the life or health of other people and the community are strictly prohibited
- **Law on Protection of People's Health** No. 21-LCT/HĐNN8 promulgated on 30/6/1989 (11/7/1989): *Chapter II* (Hygiene in daily & working life, Public hygiene, Prevention & control of diseases), *Chapter III* (Physical training and sport and rehabilitation), *Chapter IV* (Health examination and treatment).
- **The Law of Social Insurance No. 58/2014/QH13** dated 20/11/2014, **consists** of 145 Articles; of them, Articles from 42 to 52, and from 103 to 108 specify the regulations for individuals with occupational injuries and occupational diseases; allowances for

convalescence and recuperation after sickness, maternity ... This law takes effect on the date 01.01.2016.

- **Health Insurance Law No. 46/2014 / QH13** dated 13 May 06 2014 enacted by Parliament amending and supplementing some articles of the Law on Health Insurance No. 25/2008 / QH12, in which some articles related to employees were amended as Article 12. Participants of health insurance, including employees and employers consisting of: a) Employees working under labor contract with indefinite term and with the term of full 3 months or more; employees who are managers receiving wages; officials and public servants (hereinafter referred to as the employees); Groups of people who are paid by social insurance, including: a) The pensioners, people receiving monthly subsidize due to losing work capacities; b) The beneficiaries of social insurance receiving monthly subsidize due to getting accidents or occupational diseases or illness on the list of diseases requiring long-term treatment; People at least 80 years or older who receive monthly survivorship allowance; etc; amended and supplemented "Article 13 Levels and responsibility of medical insurance premiums; Article 15. Method of medical insurance premiums; Article 22. The level of health insurance benefits, etc.
- **Prevention of infectious Disease Law No. 3/2007/QH12** dated 21/7/2007, effective from 1.7.2008, includes 6 Chapter and 64 Articles. This Law regulates the prevention and control of infectious diseases; border medical quarantine; anti-epidemic; conditions for the prevention and control of human infectious diseases. The prevention and control of infection with the human immunodeficiency virus (HIV / AIDS) are not governed by this Law.
- **Environmental Protection Act** by the National Assembly of the Socialist Republic of Vietnam adopted on 23.06.2014, effective from 01.01.2015: the Environmental Protection Act 2014 inherits the basic content of the Law on Environmental Protection Act 2005: overcoming the limitations of the lack of enforcement provisions; legislated guidelines and new policies on Environmental Protection. The main content of the Environmental Protection Act has been modified and complemented, include: Responsibilities of the State management agency on Environment Protection; Environmental planning; Environmental Protection Plan; Responding to climate change; Withdrawal, processing waste products; Environmental Protection in industrial zones, industrial parks, business parks, and service; Imports of used marine vessels; Handling responsibilities for organizations and individuals that cause environmental pollution. Regulations further acts prohibited in Article 7; To

specify more about the content, principles and responsible implementation of environmental protection planning in Section 1 - Chapter II; Regulations add the main content of the evaluation report and implementing the strategic environmental assessment; Additional subject to make statements strategic environmental assessment (Article 13, Article 14 and Article 15); Put some specific provisions in the Law on the subject to make environmental impact assessment and delivered to the Government providing detailed list of projects in this area (Article 18); Regulations add objects, content, sequence planning environmental protection in Section 4 of Chapter II; The environmental protection in the mining and use of natural resources more concretized in Chapter III.

- **Chemical Law** No.06 / 2007 / QH12 dated 21/11/2007: have the regulations concerning development of the chemical industry; production, sales and use of chemical safety, environmental safety and community management responsibilities of ministries, ministerial-level agencies directly related to the operation of chemicals. MOH is responsible for managing chemicals used for the preparation of pharmaceuticals for the chemicals used in disinfectants, insecticides for domestic and public health; in collaboration with the ministries of regulations on labor safety in chemical activities; in collaboration with the Ministry of Trade and Industry to develop lists of chemicals banned or limited lists of chemicals production and business in the healthcare sector to submit to the Government for issuing; To issue the lists of chemicals which are not used, limited use and used in the medical field and chemicals used in disinfectants, insecticides for domestic and medical, pharmaceutical and additive products; in collaboration with Ministry of Labour - Invalids and Social Affairs under the authority or the competent authority to promulgate regulations on occupational safety, occupational health for workers engaged in chemicals.
- **The Law on Fire Prevention and Fighting** issued in 2013 stipulates that employers in production and business establishments must set up fire prevention and fighting teams and be equipped with tools and means of fire protection in obligatory nature.
- **The Law No. 06/2006/QH11 dated 29 June 2006 on Standards and Technical Regulations.** This Law provides for the formulation, announcement and application of standards; the formulation, promulgation and application of technical regulations; and the assessment of conformity with standards and technical regulations. This Law applies to Vietnamese and foreign organizations and individuals and overseas Vietnamese carrying

out activities related to standards and technical regulations in Vietnam. It included 7 chapter and 71 articles.

3.1.3. ILO conventions ratified:

(https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::p11200_country_id:103004)

Vietnam has ratified 25 ILO conventions, including:

- Fundamental Conventions: **7 of 8**
- Governance Conventions (Priority): **3 of 4**
- Technical Conventions: **15 of 178**
- Out of **25** Conventions ratified by Viet Nam, of which **22** are in force, **2** Conventions have been denounced; **1** has been ratified in the past 12 months.

25 ratified ILO conventions are as follows:

Fundamental

No.	Convention	Date	Status	Note
1.	<u>C029 - Forced Labour Convention, 1930 (No. 29)</u>	05 Mar 2007	In Force	
2.	<u>C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)</u>	05 Jul 2019	In Force	
3.	<u>C100 - Equal Remuneration Convention, 1951 (No. 100)</u>	07 Oct 1997	In Force	
4.	<u>C105 - Abolition of Forced Labour Convention, 1957 (No. 105)</u>	14 Jul 2020	Not in force	The Convention will enter into force for Viet Nam on 14 Jul 2021.
5.	<u>C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)</u>	07 Oct 1997	In Force	

No.	Convention	Date	Status	Note
6.	<u>C138 - Minimum Age Convention, 1973 (No. 138)</u> <i>Minimum age specified: 15 years. Pursuant to Article 3, the minimum age for admission to underground work has been specified to be 18 years.</i>	24 Jun 2003	In Force	
7.	<u>C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)</u>	19 Dec 2000	In Force	

Governance (Priority)

No.	Convention	Date	Status	Note
8.	<u>C081 - Labour Inspection Convention, 1947 (No. 81)</u>	03 Oct 1994	In Force	
9.	<u>C122 - Employment Policy Convention, 1964 (No. 122)</u>	11 Jun 2012	In Force	
10.	<u>C144 - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144)</u>	09 Jun 2008	In Force	

Technical

No.	Convention	Date	Status	Note
11.	<u>C005 - Minimum Age (Industry) Convention, 1919 (No. 5)</u>	03 Oct 1994	Not in force	Automatic Denunciation on 23 Jun 2004 by convention C138
12.	<u>C006 - Night Work of Young Persons (Industry) Convention, 1919 (No. 6)</u>	03 Oct 1994	In Force	

No.	Convention	Date	Status	Note
13.	<u>C014 - Weekly Rest (Industry) Convention, 1921 (No. 14)</u>	03 Oct 1994	In Force	
14.	<u>C027 - Marking of Weight (Packages Transported by Vessels) Convention, 1929 (No. 27)</u>	03 Oct 1994	In Force	
15.	<u>C045 - Underground Work (Women) Convention, 1935 (No. 45)</u>	03 Oct 1994	In Force	
16.	<u>C080 - Final Articles Revision Convention, 1946 (No. 80)</u>	03 Oct 1994	In Force	
17.	<u>C088 - Employment Service Convention, 1948 (No. 88)</u>	23 Jan 2019	In Force	
18.	<u>C116 - Final Articles Revision Convention, 1961 (No. 116)</u>	03 Oct 1994	In Force	
19.	<u>C120 - Hygiene (Commerce and Offices) Convention, 1964 (No. 120)</u>	03 Oct 1994	In Force	
20.	<u>C123 - Minimum Age (Underground Work) Convention, 1965 (No. 123)</u> <i>Minimum age specified: 18 years</i>	20 Feb 1995	Not in force	Automatic Denunciation on 09 Jul 2020 by convention C138
21.	<u>C124 - Medical Examination of Young Persons (Underground Work) Convention, 1965 (No. 124)</u>	03 Oct 1994	In Force	
22.	<u>C155 - Occupational Safety and Health Convention, 1981 (No. 155)</u>	03 Oct 1994	In Force	

No.	Convention	Date	Status	Note
23.	<u>C159 - Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159)</u>	25 Mar 2019	In Force	
24.	<u>MLC, 2006 - Maritime Labour Convention, 2006 (MLC, 2006)</u> <i>In accordance with Standard A4.5 (2) and (10), the Government has specified the following branches of social security: medical care; old-age benefit and employment injury benefit.</i>	08 May 2013	In Force	
	Amendments of 2014 to the MLC, 2006	18-Jan-2017	In Force	
	Amendments of 2016 to the MLC, 2006	08-Jan-2019	In Force	
	Amendments of 2018 to the MLC, 2006	26-Dec-2020	Not in force	The amendments of 2018 to the MLC, 2006 have been accepted and will enter into force for Viet Nam on 26 Dec 2020
25.	<u>C187 - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)</u>	16 May 2014	In Force	

3.2. Mechanism and Status for Law Enactments

3.2.2. Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities)

❖ **The mechanism of coordination and enactments in occupational safety and health** as follows (The Article 91 of the OSH Law):

1. *Coordination in occupational safety and health shall be conducted as follows:*

a/ The Ministry of Labor, War Invalids and Social Affairs shall assume the prime responsibility for, and coordinate with other ministries, ministerial level agencies, government-attached agencies and provincial-level People's Committees in, implementing coordination activities specified in Clause 2 of this Article under its responsibilities;

b/ Occupational safety and health state management agencies at all levels shall coordinate with political organizations, socio-political organizations, socio-politico-professional organizations, socio-professional organizations and other organizations in occupational safety and health activities in relevant fields.

2. *Contents of coordination in occupational safety and health include:*

a/ Formulation of occupational safety and health policies and laws; formulation of occupational safety and health standards and technical regulations;

b/ Formulation of national occupational safety and health programs and records;

c/ Investigation of occupational accidents; accidents and technical incidents endangering occupational safety and health; and policies and regimes for victims of occupational accidents and diseases;

d/ Occupational safety and health information, communication, education, training, statistical work and reporting; inspection of machinery, equipment and supplies subject to strict requirements for occupational safety and health;

e/ Occupational safety and health inspection, examination and supervision; and handling of violations of the occupational safety and health law;

f/ Commendation and reward related to occupational safety and health;

g/ Research and application of occupational safety and health science and technology.

❖ **Status for enactments of OSH laws & regulations:**

- The enactments of OSH laws & regulations is regulated in the OSH Law at Article 84, 85 and 86 as follows:

- **The Ministry of Labor, War Invalids and Social Affairs (MOLISA):** To formulate and submit to competent state agencies for promulgation or promulgate according to

his/her competence occupational safety and health laws, policies, plans and national programs, compiling national occupational safety and health records;

- **The Ministry of Health (MOH):** To formulate and submit to competent state agencies for promulgation, or promulgate according to his/her competence legal documents on working environment monitoring; assessment, control and management of hazardous factors at the workplace; and management and organization of working environment monitoring, management of workers 'health and occupational diseases
 - **People's Committees at all levels:** To formulate and submit to competent state agencies for promulgation or promulgate according to their competence legal documents and local technical regulations.
- The responsibility to formulate and announce national occupational safety and health standards and formulate and promulgate national occupational safety and health technical regulations are regulated as follows (Article 87 of OSH Law and Gov. Decree No. 39, Chapter VI: State Management on OSH, Item II):
1. **The Ministry of Labor, War Invalids and Social Affairs (MOLISA):**
 - To formulate national OSH technical regulations on personal protective equipment for employees; technical equipment and devices in vocational training establishments; products, goods, services, processes, environment; machinery, equipment and materials subject to strict requirements for occupational safety.
 - To formulate national OSH technical regulations and to issue the list of machinery, equipment, supplies and substances subject to strict requirements for OSH
 - To formulate national OSH technical regulations for employees participating in chemical activities; manage the use of chemicals in vocational training establishments;
 - To assume the prime responsibility for, and coordinate with ministries and ministerial-level agencies in, submitting to the Prime Minister for decision assignment of responsibility for formulating and promulgating national technical regulations on OSH for products, new goods, services, processes or environments or related to the scope of management of many ministries and ministerial-level agencies arising in the course of administration or management.
 2. **The Ministry of Health (MOH):**
 - To formulate national occupational health standards and technical regulations occupational hygiene for the working environment; health standards for pre-employment, periodic and occupational disease examination; OD diagnosis and expertise, etc.

- To issue the list of machinery, equipment, supplies and substances subject to strict requirements for OSH used in health sector

3. The Ministry of Science and Technology

- Shall approve the plan for formulating national occupational safety and health standards and announce national occupational safety and health standards.
- To formulate national OSH standards and technical regulations for nuclear reactors, nuclear materials, source nuclear materials, radioactive substances, radiation equipment.
- To organize the appraisal of draft OSH national technical regulations in accordance with the Law on Standards and Technical Regulations.

4. The Ministry of Agriculture and Rural Development

- To formulate national OSH standards and technical regulations (except for machinery, equipment and materials with strict OSH requirements) for: agricultural products, forest products, aquatic products, salt; cattle, poultry, domestic animals; agricultural, forestry and aquatic materials; fertilizer; products in the cultivation, harvesting, processing, preservation and transportation of agricultural, forestry, aquatic and salt products; additives and chemicals used in agriculture, forestry and fisheries; plant and animal protection drugs; irrigation works, dykes.
- To formulate national OSH standards and technical regulations for machinery, equipment and materials with strict requirements on occupational safety in the group of agricultural, forestry, salt and aquaculture machinery, equipment and materials.

5. Ministry of Transportation:

- To formulate national OSH standards and technical regulations (except for machines, equipment and materials with strict requirements on occupational safety) for: vehicles, vehicles, loading and unloading equipment, specialized construction used in transportation (except for vehicles serving national defense, security and fishing ships); specialized technical equipment and equipment in transportation; means and equipment for marine exploration and exploitation.
- To formulate national OSH standards and technical regulations for machines and equipment with strict requirements on occupational safety in the following group of machines and equipment: means of transport must be registered in accordance with the law in the field. Transportation; specialized loading and unloading and construction means and equipment in transportation; means and equipment for marine exploration and exploitation

6. Ministry of Industry and Trade:

- To formulate national OSH standards and technical regulations (except for machinery, equipment and materials with strict requirements on occupational safety) for: mechanical industry, metallurgy; electricity production, transmission and distribution; new energy, renewable energy; coal mining; exploiting, processing, transporting, distributing, storing oil and gas and petroleum products, except for marine exploration and exploitation means and equipment.
- To formulate national OSH standards and technical regulations for machines, equipment and materials with strict requirements on occupational safety in the following group of machines, equipment and materials: industrial explosives; pressure equipment, specialized lifting equipment for industries; equipment for oil and gas exploitation, except for equipment and means for sea exploration and exploitation.

7. Ministry of Construction:

- To formulate national OSH standards and technical regulations for technical measures and construction organization
- To formulate national OSH standards and technical regulations for machinery, equipment and materials with strict requirements on occupational safety used in construction.

8. Ministry of Information and Communications:

- To formulate national OSH standards and technical regulations (except for machines and equipment with strict requirements on occupational safety) for telecommunications works; telecommunications, electronics and information technology networks.
- To formulate national OSH standards and technical regulations for machines and equipment with strict requirements on occupational safety in the group of telecommunications machines and equipment; radio transmitters and transceivers.

9. Ministry of Defense

- To formulate national OSH standards and technical regulations for military means and equipment, weapons and ammunition, products serving national defense, and defense works that are not subject to national secrets.
- To formulate national OSH standards and technical regulations for machines, equipment and materials with strict requirements on occupational safety exclusively used for the purpose of national defense and military specialties.

10. Ministry of Public Security

- To formulate national OSH standards and technical regulations for technical equipment, weapons, ammunition, weapons, support tools, explosives and other products used by the

People's Public Security Forces outside subject to national secrets, except for the case specified at Point a, Clause 8 of this Article.

- To formulate national OSH standards and technical regulations for fire prevention and fighting machine and equipment with strict requirements on occupational safety.

3.3. Authority or Body, Responsible for OSH

3.3.1. Authority or body, responsible for OSH:

The state management of occupational safety and health is mentioned in the Chapter VI of the OSH Law, including the contents and authorities responsible for OSH, as follows:

❖ Contents of state management of occupational safety and health (OSH Law, Article 82)

1. Promulgating, and organizing the implementation of, legal documents on occupational safety and health; and formulating, promulgating or announcing national occupational safety and health standards and technical regulations and local occupational safety and health technical regulations according to assigned management competence.
2. Conducting communication, dissemination and education of the occupational safety and health law.
3. Monitoring, compiling statistics and providing information on occupational accidents and diseases; formulating national occupational safety and health programs and records.
4. Managing the organization and operation of occupational safety and health service organizations.
5. Organizing and conducting research and application of science and technology in occupational safety and health.
6. Inspecting, examining, settling complaints and denunciations related to occupational safety and health, and handling violations of the occupational safety and health law.
7. Organizing training in occupational safety and health.
8. Implementing international cooperation on occupational safety and health

❖ State management responsibilities for occupational safety and health (OSH law, Article 83)

1. The Government shall perform the uniform state management of occupational safety and health.
2. The Ministry of Labor, War Invalids and Social Affairs shall take responsibility before the Government for performing the uniform state management of occupational safety and health.
3. Ministries and ministerial-level agencies shall, within the scope of their respective tasks and powers, perform the state management of occupational safety and health.

4. People's Committees at all levels shall, within the scope of their respective tasks and powers, perform the state management of occupational safety and health

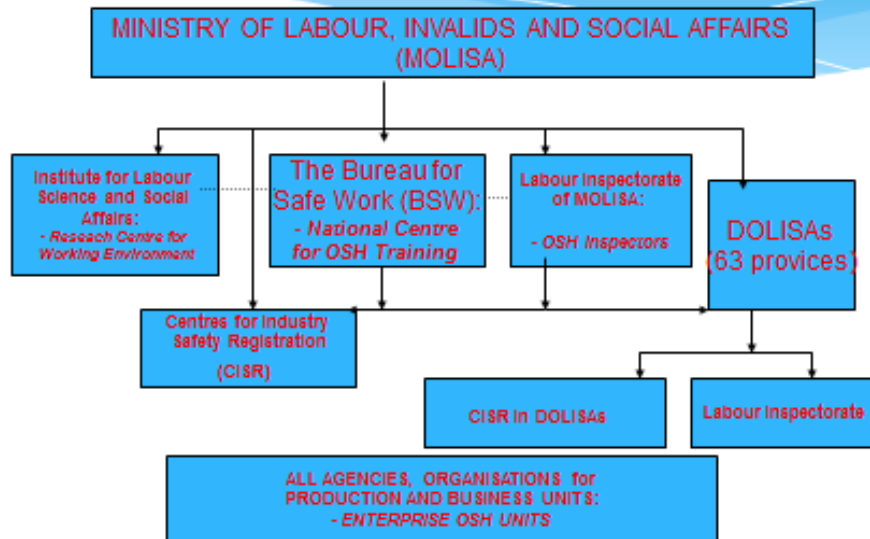
❖ *State management responsibilities for occupational safety and health of different organizations as follows:*

- **The Minister of Labor, War Invalids and Social Affairs (OSH Law, Article 84)**

1. To assume the prime responsibility for formulating and submitting to competent state agencies for promulgation or promulgate according to his/her competence occupational safety and health laws, policies, plans and national programs, and organizing the implementation thereof; to compile national occupational safety and health records.
2. To issue the list of machinery, equipment, supplies and substances subject to strict requirements for occupational safety and health as prescribed in Clause 2, Article 28 of this Law; to assume the prime responsibility for performing the state management of occupational safety and health training activities and inspection of machinery, equipment and supplies subject to strict requirements for occupational safety.
3. To formulate, or participate according to his/her competence in the formulation of, national occupational safety and health standards and technical regulations as prescribed in Article 87 of this Law.
4. To monitor, summarize and provide occupational safety and health information; compile occupational safety and health statistics in accordance with the statistics law.
5. To assume the prime responsibility for conducting communication, dissemination and education of the occupational safety and health law; to prevent technical incidents endangering occupational safety and health, occupational accidents and diseases.
6. To submit to the Government for decision solutions in necessary cases to protect the legitimate rights and interests of employees related to occupational accident and disease insurance.
7. To inspect, examine, and handle violations of the occupational safety and health law; to investigate, and coordinate in the investigation of, occupational accidents and technical incidents endangering occupational safety and health; to propose the Ministry of Public Security and the Supreme People's Procuracy to investigate and handle occupational accidents with signs of crime.
8. To implement international cooperation on occupational safety and health.



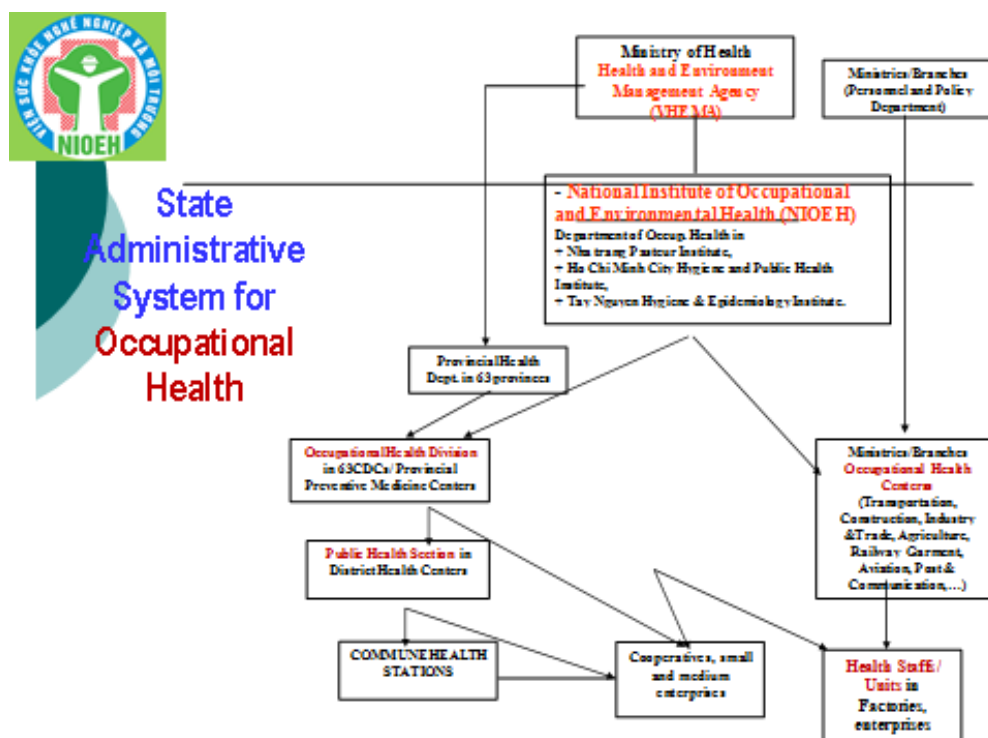
State administrative system of Occupational Safety in Vietnam



- **The Minister of Health (OSH Law, Article 85)**

1. To formulate and submit to competent state agencies for promulgation, or promulgate according to his/her competence legal documents on working environment monitoring; assessment, control and management of hazardous factors at the workplace; and management and organization of working environment monitoring.
2. To formulate national occupational safety and health standards and technical regulations applicable to occupational health factors in the working environment; to give opinions on occupational health contents according to his/her competence as prescribed in Clause 5, Article 87 of this Law.
3. To guide according to his/her competence the management of occupational health and prevention and control of occupational diseases.
4. To guide the provision of health check-up and medical examination to detect occupational diseases, assessment to determine the level of working capacity decrease, treatment and functional rehabilitation for victims of occupational accidents and diseases; to manage health records of employees.
5. To coordinate with the Ministry of Labor, War Invalids and Social Affairs in developing training contents on occupational health; to communicate, disseminate and educate about the occupational health law.

6. To draw up, issue and periodically review, revise and modify the list of occupational diseases as prescribed in Clause 1, Article 37 of this Law; to organize assessment of occupational diseases; to formulate and promulgate health standards for each occupation and job after consulting related ministries and sectors.
7. To monitor, summarize and provide occupational safety and health information; to compile statistics and build a database on occupational diseases; to manage employees' health at the workplace.
8. To coordinate with the Ministry of Labor, War Invalids and Social Affairs in establishing evaluation criteria for the list of heavy, hazardous and dangerous occupations and jobs and extremely heavy, hazardous and dangerous occupations and jobs.
9. To coordinate with the Ministry of Labor, War Invalids and Social Affairs in inspecting and examining the observance of the occupational safety and health law in accordance with law.
10. To send to the Ministry of Labor, War Invalids and Social Affairs annual reports on the implementation of occupational safety and health policies and laws under their management.



- People's Committees at all levels (OSH Law, Article 86)

1. To formulate and submit to competent state agencies for promulgation or promulgate according to their competence legal documents and local technical regulations.
2. To manage occupational safety and health in the localities; to formulate, and organize the implementation of, occupational safety and health policies and laws in the localities.
3. To send annual reports on the implementation of occupational safety and health policies and laws in the localities to the People's Councils of the same level or prepare extraordinary reports at the request of competent state agencies in accordance with law.
4. To annually arrange resources suitable to their practical local conditions for communication, dissemination and education on the occupational safety and health law in the localities; to prioritize communication, dissemination and education on the occupational safety and health law for employees without labor contract in the localities.
5. To inspect, examine, and handle violations of the occupational safety and health law in the localities according to their competence.

- National Occupational Safety and Health Council, provincial-level Occupational Safety and Health Councils (OSH Law, Article 88)

1. The National Occupational Safety and Health Council is an advisory body assisting the Government in the formulation, amendment and supplementation of occupational safety and health policies and laws. The Council shall be established by the Prime Minister with members being representatives of the Ministry of Labor, War Invalids and Social Affairs, the Ministry of Health, the Vietnam General Confederation of Labor, the Vietnam Farmers' Association, employers' representative organizations and related ministries and sectors, and a number of occupational safety and health specialists and scientists.
2. Provincial-level Occupational Safety and Health Councils are advisory bodies assisting provincial-level People's Committees in organizing the implementation of occupational safety and health policies and laws in the localities. Such a council shall be established by the chairperson of the provincial-level People's Committee with members being representatives of the provincial-level Department of Labor, War Invalids and Social Affairs, the Department of Health, the Confederation of Labor, the Farmers' Association, a number of enterprises, agencies and organizations, and a number of occupational safety and health specialists and scientists in the locality.
3. Occupational Safety and Health Councils shall organize annual dialogues for sharing information, increasing understanding among employers, employees, trade unions, employers' representative organizations and state agencies to promote equal and safe

working conditions for employees, and improve the effectiveness of the formulation and implementation of occupational safety and health policies and laws.

4. The Government shall prescribe in detail the establishment, functions, tasks, organization and operation of the National Occupational Safety and Health Council and provincial-level Occupational Safety and Health Councils.

3.4. Mechanisms for Ensuring Compliance including the System of Inspection

3.4.1. Number and inspection status of labour inspection office

- ❖ Occupational safety and health inspectorates is regulated in the Article 89 of OSH Law as follows:
 - Occupational safety and health inspectorates are specialized inspectorates of central- and provincial-level labor state management agencies.
 - Occupational safety and health inspection in the fields of radiation, oil and gas exploration and exploitation, railway, waterway, land and air transportation and in people's armed forces units shall be conducted by state management agencies of such fields in coordination with occupational safety and health inspectorates.
- ❖ **Agencies performing the inspection function of Labor - Invalids and Social Affairs** (Article 3 of Gov. Decree No. 110/2017/ND-CP dated 4 October 2017 on organization and operation of inspectorates in Labour, War Invalid and Social Affairs
 - **State inspection agency:**
 - a) Inspector of the Ministry of Labor, War Invalids and Social Affairs (MOLISA):
Department of Occupational Safety
 - b) Inspectors of Departments of Labor, War Invalids and Social Affairs (DOLISA) in provinces and centrally run cities

So, at central level, Department of Occupational Safety of MOLISA is responsible for state OSH inspectorates and at provincial-level, there are 63 offices of inspectorates located in Provincial Department of Labour, Invalid and Social Affairs (DOLISA)

- ❖ **Contents of the specialized inspection on labor and OSH** is regulated in the Article 15 of Gov. Decree No. 110/2017/ND-CP dated 4 October 2017 on organization and operation of inspectorates in Labour, War Invalid and Social Affairs as follows:
 - To inspect the observance of the labor law provisions: The observance of the obligations of employees and employers; labor contract; apprenticeship, internship; dialogue at workplace, collective bargaining, collective labor agreement; salary;

working time and rest time; labor discipline, material responsibility; the implementation of separate regulations for female employees, young workers and some other types of employees; compliance with other regulations of the labor law.

- To inspect the observance of the OSH law provisions: The implementation of measures to prevent and combat the dangerous and harmful factors for workers; measures to handle technical incidents causing occupational unsafe and unsanitary conditions, occupational accidents and occupational diseases; ensure OSH for a number of particular employees; ensuring OSH for production and business establishments; operation of OSH service organizations

❖ **OSH Inspection order and procedures:**

a) The formulation and approval of inspection plans, dissemination of inspection plans, and formulation of outlines to request inspected subjects to report, comply with Articles 18 and 19. Article 20 of Decree No. 07/2012 / ND-CP.

In case of conducting consecutive inspections, with the same composition of the inspection team and the inspection contents, the inspection plan shall be built together for the inspections.

b) Announcing the announcement of an inspection decision shall comply with Article 21 of Gov. Decree No. 07/2012 / ND-CP.

If there are grounds to believe that the prior notice will affect the inspection results or must immediately intervene to protect the workers' rights or ensure OSH at the workplace, the inspection team or an inspector assigned to conduct an independent inspection has the right to enter the production, business or service establishment regardless of day or night without prior notice and must obtain the consent of the head of the management agency at the same level.

Inspection at night, outside office hours is coordinated by relevant authorities, police and local authorities (if deemed necessary). The Minister of Labor, War Invalids and Social Affairs takes the lead in developing a coordination mechanism with relevant authorities.

c) Announcing the inspection decision: Within 15 days from the date of signing the inspection decision, the head of the inspection team shall announce the inspection decision to the subject of inspection, the inspection record announcement record shall be made together with the working record of inspection team.

d) Report on inspection results: Within 10 days from the end of the final inspection of the inspection plan, the head of the inspection team must make a general report on inspection results.

Synthesized report on inspection results ensures that the contents are specified in Article 25 of Decree No. 07/2012 / ND-CP.

- ❖ For Specialized inspection conclusions: Based on the general report on inspection results and explanatory contents of the inspected object (if any), within 15 days after receiving the inspection result report, the inspection decision issuer must issue a inspection conclusions for each inspected object.
- ❖ **Inspection reporting regime (Article 25 of Gov. Decree No. 110/2017/ND-CP dated 4 October 2017 on organization and operation of inspectorates in Labour, War Invalid and Social Affairs):**
 - The Ministerial Inspectorate shall report to the Minister and the Government Inspector General on the inspection and settlement of complaints and denunciations, citizen reception and anti-corruption within their assigned responsibilities according to law provisions.
 - Heads of agencies assigned to perform the specialized inspection function shall report on the specialized inspection work to the Ministry Inspectorate for summing up and reporting to the Minister.
 - Department Inspectorate reports to Department Director, Provincial Chief Inspector on inspection, settlement of complaints and denunciations, citizen reception and anti-corruption; report to the Chief Inspector of the Ministry on the specialized inspection, settle complaints and denunciations, and receive citizens according to the provisions of law.
 - The regime of periodical reporting on the inspection and reception of citizens, settlement of complaints and denunciations and the prevention and fight against corruption comply with the provisions of law.
- ❖ **Coordination in inspection and checking OSH prescribed in Article 43 of Gov. Decree No. 39/2016/ND-CP as follows:**
 1. The Ministry of Labor, War Invalids and Social Affairs shall assume the prime responsibility for, and coordinate with ministries, ministerial-level agencies and agencies attached to, the Government in, inspecting, examining and supervising OSH; handle according to its competence the violations of the law on OSH.

2. State management agencies in the fields of radioactivity, oil and gas exploration and exploitation, railway, waterway, road and air transport vehicles and units of the armed forces. report the plan of OSH inspection in these fields to the Ministry of Labor, War Invalids and Social Affairs and the local Department of Labor, War Invalids and Social Affairs where the inspection is organized to coordinate implementation.

3. The OSH inspector of the Ministry of Labor, War Invalids and Social Affairs makes an unscheduled inspection of OSH in the fields specified in Clause 2 of this Article in the following cases :

a) Under the direction of the Prime Minister;

b) When there are risks of occupational unsafety and unsanitary causing accidents or seriously affecting the employee's health;

c) At the request of line ministries.

4. Ministries and ministerial-level agencies, when conducting OSH inspections within the scope, tasks and powers of their state management, shall invite representatives of the Ministry of Labor, War Invalids and Communes. join association; sending inspection results and recommendations to the Inspector of OSH of the Ministry of Labor, War Invalids and Social Affairs.

5. The inspector of OSH of the Ministry of Labor, War Invalids and Social Affairs is responsible for handling and handling the results of the inspection and recommendations on OSH of the ministries and agencies. ministerial level according to authority; notify the results to the agency sending the petition.

6. Provincial-level People's Committees shall stipulate the coordination among local Departments, Committees and branches in inspecting and examining OSH in their respective localities.

❖ **Inspection Status:**

According to statistics of the MOLISA Inspectorates, in 2014 there are 465 labor inspectors nationwide to undertake the inspection function of the implementation of labor policies, OSH regulations, people with meritorious services, social insurance, young workers, settlement of complaints and denunciations about the implementation of the labor policy regime. The number of officers working in the inspection of labor and OSH policies in the over country only reached over one third of the above number of labor inspectors. During 2011-2015, each year, OSH inspectorates only conducted about 5,600 enterprises / 525,000 enterprises and just focused on large enterprises that are at high risk of strikes, strikes and occupational accidents.

Many occupational accidents were not promptly reported by enterprises (*Source: The national OSH Profile during 2011-2015, MOLISA 2016*)

3.4.2. Utilization of private agency for inspection: there is no private agency involved in inspection on OSH

3.4.3. Reporting and notification system for workplaces

3.4.3.1. Reporting and notification system for occupational accidents and injuries at workplaces:

❖ **Notification of occupational accidents and technical incidents** endangering occupational safety and health prescribed in the Article 34 of OSH Law and Gov. Decree No 39/2016/ND-CP, Chapter III: notification, investigation, reporting of occupational accidents, technical incidents causing serious OSH failure as follows:

1. The notification of occupational accidents and technical incidents endangering occupational safety and health shall be carried out as follows:

a/ Upon the occurrence or facing of the risk of an occupational accident or a technical incident endangering occupational safety and health at the workplace, the victim of the accident or the person knowing the incident shall immediately report it to the direct supervisor or employer for taking measures to timely handle the accident or incident and remedy its consequences;

b/ If an accident causes death or serious injuries to at least 2 employees, the employer shall immediately notify it to the provincial-level labor state management agency of the place where the accident occurs. For an accident that causes death, the employer shall also notify it to the Public Security agency of the district, town or provincial city

c/ For accidents and incidents in the fields of radiation, oil and gas exploration and exploitation, railway, waterway, road and air transportation and in army forces, employers shall notify them in accordance with specialized laws.

d/ For an occupational accident that causes death or serious injuries to employees without labor contract, the relative of the victim or the person who detects it shall immediately notify it to the People's Committee of the commune, ward or township where the accident occurs for taking timely handling measures.

Upon the occurrence of an accident that causes death or serious injuries to at least two employees, the commune-level People's Committee shall immediately notify it to the district-level Public Security agency and the provincial-level labor state management agency of the place where the accident occurs for taking timely handling measures.

Upon the occurrence of a technical incident endangering occupational safety and health related to employees without labor contract, the person who detects the incident shall notify it to the commune-level People's Committee of the place where the incident occurs.

2. Within the scope of their responsibilities, competent agencies and organizations shall consider and deal with information on occupational accidents and technical incidents endangering occupational safety and health, inform the results of dealing with such information to agencies, organizations and individuals notifying such accidents or incidents upon request, and apply necessary measures to protect lawful and legitimate rights and interests of informants.

❖ **Time and form of occupational accident report** (Article 24 of Gov. Decree No. 39/2016/ND-CP) as follows:

The occupational accident report as prescribed in Article 36 of the Law on OSH is done as follows:

1. The employer shall send a report on the labor accident situation to the Department of Labor, War Invalids and Social Affairs, where the employer's head office is located; reports sent before July 5 every year for the first 6 months of the year and before January 10 of the following year, for the annual reports, according to the form provided in Appendix XII to this Decree. The report is sent by one of the following forms: in person, fax, post, email.

2. Commune-level People's Committees shall report occupational accidents and technical incidents causing serious occupational unsafety and insanitation related to employees working without labor contracts occurring in their localities, specified in Clause 2, Article 36 of the Law on OSH with district-level People's Committees under the form prescribed in Appendix XVI issued together with this Decree before July 5 for the first 6-month report and before January 5 of the following year for annual reports.

3. The district-level People's Committee shall synthesize labor accidents and technical incidents causing serious occupational unsafety and unsanitary problems related to employees working without labor contracts occurring in the locality. to report to the Department of Labor, War Invalids and Social Affairs under the form provided in Appendix XVI to this Decree before July 10, for the first 6-month reports and before January 10 of the following year, for reports. year.

4. Reporting responsibilities of the Department of Labor, War Invalids and Social Affairs are as follows:

- a) Quickly report fatal occupational accidents and serious occupational accidents that injure two or more employees to the Ministry of Labor, War Invalids and Social Affairs using the form specified in Appendix XIII issued with according to this Decree;
- b) Summarize the occupational accident situation that happened in the first 6 months of the year and a year in the province; send reports on occupational accident situation in the form specified in Appendix XIV and Appendix XV issued together with this Decree to the Ministry of Labor, War Invalids and Social Affairs (Department of Labor Safety) and Department of Statistics. statistics before July 15 for the first 6 months of the year and before January 25 of the following year for annual reports.

5. The agencies in charge of investigation of occupational accidents in the specific domain (radiation, oil and gas exploration and exploitation, railway, waterway, road and air transportation and in army forces) are responsible for reporting the accident situation. occupational accidents under the competence of investigation and send to the Ministry of Labor - Invalids and Social Affairs before July 15 for the first 6-month report and before January 25 of the following year for the annual report according to the form specified in Appendix XVII issued with this Decree.

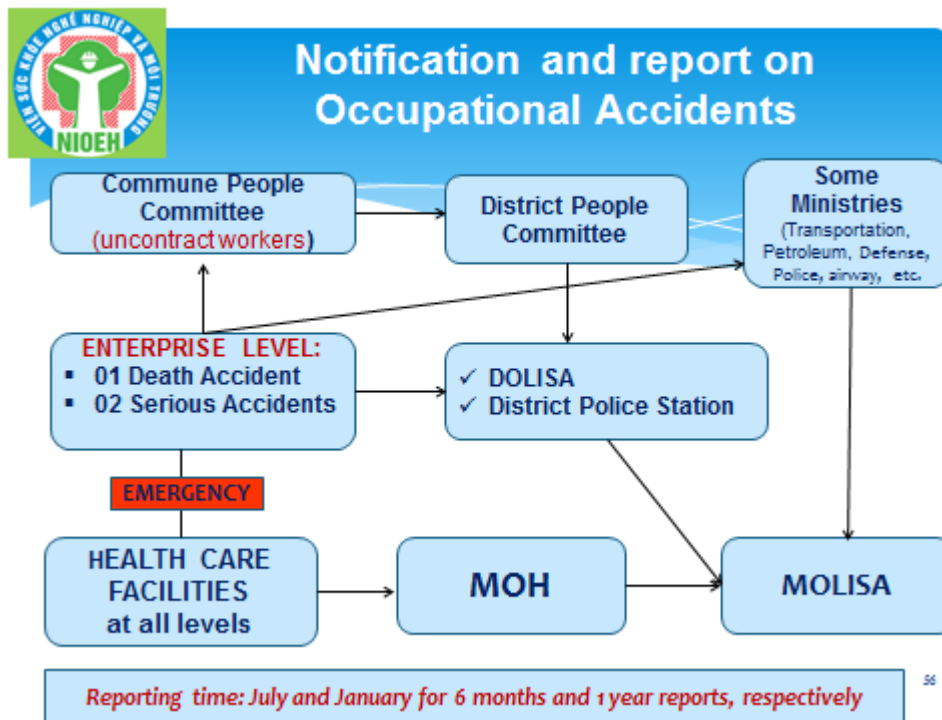
❖ **Reporting and providing information cases of occupational accident victims who receiving medical examination and treatment at medical examination and treatment establishments** (Article 25 of Gov. Decree No 39/2016/ND-CP) as follows:

1. The medical examination and treatment establishment shall make statistics of occupational accidents cases for examination and treatment at the establishments and send them to the Department of Health before July 5, for the first 6-month reports and before January 10 of the following yea, for annual reports using the form provided in Appendix XVIII to this Decree.

2. The Department of Health shall sum up the victims of occupational accidents for examination and treatment at local medical examination and treatment establishments according to the form provided in Appendix XIX to the Decree and send them to the

Ministry of Health before the 15th. July for the first 6-month report and before January 25 of the following year for the annual report.

3. The Ministry of Health shall send a general report on occupational accident victims of examination and treatment at medical examination and treatment establishments to the Ministry of Labor, War Invalids and Social Affairs before July 31, for the 6-month data of the beginning of the year and before February 15 of the following year for the annual data according to the form provided in Appendix XX to this Decree.



❖ **Reporting, investigating and reporting technical incidents** causing OSH failure and technical incidents causing serious OSH failure as prescribed in Article 26 of Gov. Decree No 39/2016/ND-CP as follows:

1. When an incident that causes death or serious injury of 2 or more people but the victim is not the employee under the management or the employee has an accident but the casualties are unknown, the employer The establishment's actions to occur the incident must be reported as quickly as possible to the inspector of the Department of Labor - Invalids and Social Affairs, where the incident occurred, to the District Police if the victim dies according to the prescribed form. in Appendix III attached to this Decree.

2. In addition to the declaration as prescribed in Clause 1 of this Article, technical incidents causing OSH failure and serious technical incidents causing serious OSH failure must be declared, Investigate, make statistics and report in accordance with specialized law.

3. For technical incidents causing serious occupational unsafety and insanitation but the specialized law does not provide for the declaration, the following actions shall be taken:

a) The person who discovers or receives the notification of a technical incident causing serious occupational unsafety and unsanitary shall immediately notify the employer of the establishment of the incident or the People's Committee of the commune, where the problem occurred. The employer and the communal People's Committee shall immediately notify the People's Committee of the district where the incident occurs;

b) For a technical incident causing serious occupational unsafety and unsanitary incident related to many production and business establishments or localities, the employer, the locality where the incident occurred, has Responsibility to immediately report to the People's Committees of districts and the People's Committees of provinces.

4. After conducting the investigation of the technical incident causing serious occupational unsafety and insanitation according to the provisions of the specialized law, the competent state agency in charge of the investigation shall send results or conclusions, Minutes of investigation to the provincial Department of Labor, War Invalids and Social Affairs where the incident occurred, the Ministry of Labor, War Invalids and Social Affairs and relevant agencies.

3.4.3.2. Reporting and notification system for employees' health and occupational diseases at workplaces

❖ **Circular No. 19/2016/TT-BYT by MOH** on guide the management of occupational hygiene and employees' health including Reporting regulations as follows:

***At Grassroots level:**

1. Unit and content of report:

a) The labor establishment shall make the occupational health report using the form prescribed in Appendix 8 enclosed the **Circular No. 19/2016/TT-BYT by MOH**;

b) District-level medical facilities and medical stations of communes, wards and townships shall report occupational accidents cases under the form specified in Decree

No. 39/2016 / ND-CP dated May 15, 2016 of the Government detailing the implementation of a number of articles of the Law on Occupational Safety and Health (hereinafter referred to as Decree No. 39/2016 / ND-CP) .

2. Unit receiving report:

- a) The medical centers at the district, urban district, town or provincial city (hereinafter referred to as the medical center) where the head office of the labor establishment is located;
- b) Health management units of industrial ministries and branches, for cases where labor establishments fall under the management of industrial ministries or branches.

3. Time to send report:

- a) Before July 5 every year for the first 6-month report;
- b) Before January 10 of the following year for the annual report.

***At District level**

1. Unit and content of report:

- a) The medical center shall make the occupational health report according to the form in Appendix 9 to this Circular;
- b) Provincial medical facilities that report occupational accidents are examined and treated at the units using the form specified in Decree No. 39/2016 / ND-CP.

Report recipient: Department of Health.

3. Time to send report:

- a) Before July 10 every year for the first 6 month report;
- b) Before January 15 of the following year for the annual report.

*** Provincial level**

1. Unit and content of report:

- a) Departments of Health and health management units of ministries and branches shall make occupational health reports according to the form provided in Appendix 10 to this Circular;
- b) The Department of Health shall report on the list of units eligible for working environment observation in the area using the form provided in Appendix 11 to this Circular.

2. Unit receiving report: Ministry of Health (Department of Environmental Management of Health).
3. Time to send report:
 - a) For the occupational health report:
 - Before July 15 every year for the first 6 month report;
 - Before January 25 of the following year for annual reports.
 - b) For the report on the list of units eligible for working environment observation:

Within 03 working days from the date the Department of Health announced the unit eligible for working environment observation on the portal Information of the Department of Health.

3.5. Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases

3.5.1. Workmen's compensation insurance and social security schemes:

This issue is regulated in OSH Law, Section 3: Occupational accident and disease insurance Regimes, Gov. Decree No. 37/2016 / ND-CP dated May 15, 2016 detailing a number of articles of the OSH Law regarding compulsory occupational accident and disease insurance and **Circular No. 26/2017/TT-BLDTBXH (dated 20/9/2017)**: Regulations and guiding the implementation of compulsory work accident and occupational diseases insurance as follows:

- ❖ The Occupational Accident and Disease Insurance Fund is a component of the Social Insurance Fund that cover the compensation for the victims suffer from occupational accidents (OA) and occupational diseases (OD)
- ❖ **The Occupational Accident and Disease Insurance Fund covers the following payments:**
 1. Payment of expenses for medical assessment of injuries and illnesses caused by occupational accidents and diseases; payment of expenses for medical assessment in case employees get on their own initiative medical assessment for determination of the level of working capacity decrease with the assessment results showing that such employees are eligible for higher benefits for occupational accidents or diseases.
 2. Payment of lump-sum allowance, monthly allowance and service allowance.

3. Payment of costs of assistive and orthopedic devices.
4. Payment of expenses for convalescence and health rehabilitation.
5. Payment of expenses for prevention and sharing of risks of occupational accidents and diseases.
6. Payment of expenses for victims of occupational accidents and diseases to change their occupations or jobs when they return to work.
7. Payment of expenses for management of occupational accident and disease insurance in accordance with the Law on Social Insurance.

❖ **The contribution to the OA & OD Insurance Fund:** Employers shall pay monthly premiums as follows:

- a) The rate of 1% of the employee's salary fund for paying social insurance premiums. In case the employer is an enterprise, cooperative, individual business household or cooperative group operating in the fields of agriculture, forestry, fishery or salt production with pay based on product or contract every month, every 3 months or every 6 months.
- b) The rate of 1% of the base salary for each employee

❖ **Employees are subject to compulsory occupational accident and disease insurance,** including:

- a) Cadres, public employees
- b) National defense workers, police workers, other workers in cipher organizations; officers and professional army soldiers; Professional officers and non-commissioned officers, professional and technical officers and non-commissioned officers of the People's Public Security; Cipher workers receive the same salary as soldiers; non-commissioned officers and soldiers of the People's Army; People's Public Security non-commissioned officers and men who serve a definite time; Military students, police and cipher students who are studying will enjoy living expenses;
- c) Persons working under indefinite term labor contracts, fixed-term labor contracts, seasonal labor contracts or for a certain job with a term of between full 3 months and under 12 months
- d) Persons working under labor contracts with a term of between full 01 month and under 03 months;

- dd) The enterprise managers, the managers and the cooperatives enjoying salary;
- e) Persons working under labor contracts signed between the employer and the legal representative of the person under 15 years old in accordance with the labor law;

❖ **Conditions for enjoying the occupational accident regime:** Employees participating in occupational accident and disease insurance fund are entitled to the occupational accident regime if they fully meet the following conditions:

1. Having an accident in one of the following cases:

a/ At the workplace and during working hours, even when they are doing personal activities at the workplace or during working hours allowed by the Labor Code and regulations of their production or business establishment, including breaks between working hours, mid-shift meals, inkind meals, menstruation breaks, shower time, breastfeeding time, and toilet

use;

b/ Outside the workplace or out of working hours while performing a task requested by the employer or a manager authorized by the employer in writing;

c/ On the way going to or coming back from the workplace along a reasonable route and within a reasonable time;

2. Having their working capacity decreased by at least 5% due to the accident

❖ **Conditions for enjoying the occupational disease regime**

1. Employees participating in occupational accident and disease insurance fund are entitled to the occupational disease regime if they fully meet the following conditions:

a/ Getting an occupational disease on the list of compensated occupational diseases issued by the Minister of Health;

b/ Having their working capacity decreased by at least 5% caused by a disease

2. After retiring or no longer performing the occupation or job at risk of occupational diseases on the list of compensated occupational diseases issued by the Minister of Health, if the employee is detected to have got an occupational disease within the prescribed time, he/she may be provided with medical assessment for consideration and provision of the regime under regulations of the Government.

➤ **COMPENSATION SCHEME:**

➤ **Subsidy for an employee getting work accident and occupational disease who is assessed work capacity decrease for the first time (Article 5)**

1. **The one-time benefits** for occupational accidents and diseases are calculated as follows:

One-time subsidy = The allowance level is calculated according to the working capacity decrease + The benefit level is calculated according to the number of years paid to the occupational accident and disease insurance fund

$$= \{5 \times L_{\min} + (m-5) \times 0,5 \times L_{\min}\} + \{0,5 \times L + (t-1) \times 0,3 \times L\}$$

In which:

- L_{min}: base salary at the time of entitlement.
- m: degree of work ability decrease due to a work accident or an occupational disease (take absolute number $5 \leq m \leq 30$).
- L: Salary paid for insurance premiums into the occupational accident and disease insurance fund.
- t: Total number of years of insurance payment to the occupational accident and disease insurance fund

2. The monthly allowance for occupational accident and disease benefit is calculated as follows:

Monthly allowance level = The allowance level is calculated according to the working capacity decrease + The benefit level is calculated according to the number of years paid to the occupational accident and disease insurance fund

$$\{0,3 \times L_{\min} + (m-31) \times 0,02 \times L_{\min}\} + \{0,005 \times L + (t-1) \times 0,003 \times L\}$$

In which

- L_{min}: base salary at the time of entitlement.
- m: decrease in working capacity due to a occupational accident or an occupational disease (take absolute number $31 \leq m \leq 100$).
- L: Salary and insurance contributions to the occupational accident and disease insurance fund.
- t: Total number of years paid to the occupational accident and disease insurance fund

3. Persons who are enjoying the monthly work accident or occupational disease allowance, when they go abroad to settle down and request, may be entitled to a lump-sum allowance, the lump-sum allowance level is equal to 3 months of the current enjoyed subsidy rate.

➤ **Settlement of benefits for work accidents and occupational diseases for the employees whose decreased work capacity is re-assessed after their injuries and diseases recur (Article 6)**

1. For the employees enjoying the work accident or occupational disease allowance:

a) For the employee who has received the lump-sum occupational accident or occupational disease benefit in accordance with the law on social insurance before January 1, 2007:

- If, after re-assessment, there is a working capacity decrease of less than 31%, he / she will be entitled to a lump-sum allowance as follows:

Work capacity decrease before re-assessment	Work capacity decrease after re-assessment	One-time subsidy
From 5% to 10%	From 10% and less	Not enjoying the new subsidy
	From 11% to 20%	4 months base salary
	From 21% to 30%	8 months base salary
From 11% to 20%	From 20% or less	Not enjoying the new subsidy
	From 1% to 30%	4 months base salary
From 21% to 30%	From 30% or less	Not enjoying the new subsidy

- If, after re-assessment, there is a working capacity decrease of 31% or more, they will be entitled to a monthly work accident or occupational disease allowance. The entitlement level is specified at Point b below.

b) For the employees who have received the monthly work accident or occupational disease allowance in accordance with the law on social insurance before January 1, 2007, after re-assessment, based on the results of re-assessment of the working capacity decrease, to enjoy the monthly allowance according to the following provisions:

Work capacity decrease	Monthly subsidy
Group 1: from 31% to 40%	0,4 months base salary
Group 2: from 41% to 50%	0,6 months base salary
Group 3: from 51% to 60%	0,8 months base salary
Group 4: from 61% to 70%	1,0 months base salary
Group 5: from 71% to 80%	1,2 months base salary

Group 6:from 81% to 90%	1,4 months base salary
Group 7: from 91% to 100%	1,6 months base salary

2. For an employee who has received the one-off labor accident or occupational disease allowance from January 1, 2007:

a) After re-assessment, if there is an increase in decreased working capacity compared to the previous one and less than 31%, they shall enjoy a lump-sum allowance. The one-time subsidy rate is calculated by the difference between the subsidy rate calculated according to the new working capacity decrease rate and the allowance rate calculated at the previous working capacity decrease.

b) After re-assessment, with a working capacity decrease of 31% or more, they are entitled to a monthly allowance, in which the allowance level calculated according to the working capacity decrease that is calculated on the level of the new decreased work capacity; The level of subsidy is calculated according to the number of years of social insurance payment that is calculated with the number of years of social insurance payment and the salary and wages of the month of social insurance payment before the one-time subsidy is calculated.

3. For employees who have received monthly work accident or occupational disease allowance from January 1, 2007 onwards, when re-assessment has a change in working capacity decrease, the rate of monthly allowance is changed. The new monthly allowance is calculated, in which the allowance level is calculated according to the working capacity decrease rate calculated on the new working capacity decrease. The rate of subsidy calculated according to the number of years of social insurance payment is the current rate.

4. The employee who suffers a work accident or an occupational disease but the degree of working capacity decrease is ineligible for the benefit of an occupational accident or disease and the injury or disease recurs after the assessment, and the working capacity decrease is eligible for benefits for occupational accidents and diseases, the allowance level is calculated according to the provisions of Clauses 1 and 2, Article 5.

5. The rate of allowance for occupational accident and disease for the employee whose work capacity decrease re-assessed as prescribed in Clauses 2 and 3 of this Article is calculated according to the base salary at the month of re-examination by the Medical Examination Council.

6. A dossier for a work accident or an occupational disease benefit for a person who has a work accident or an occupational disease and re-examined after the injury or disease recurs, comprises:

- a) Social insurance book for cases of occupational accident or occupational disease that have been assessed but ineligible for reduction of working capacity to enjoy benefits; a valid copy (is an authenticated copy from the master register or a copy from the original or a copy that has been compared with the original) of the dossier for entitlement to benefits for occupational accidents and diseases, for cases already received work accident and occupational disease benefits.
- c) Record of investigation of occupational accident or result of environmental measurement in case of completion of treatment or hospital discharge before July 1, 2016 but the previous assessment fails to meet the impairment level of reduced working capacity to enjoy work accident and occupational disease benefits; In case of a traffic accident which is determined to be an occupational accident, one of the following papers is additionally required: Record of scene examination, outline of the scene of the traffic accident or Record of traffic accident of the facility by police officer or military criminal investigation agency.
- d) The latest assessment of the working capacity decrease, issued by the Medical Examination Council, for the case that has been assessed but has not met the working capacity decrease condition to enjoy the benefits.
- dd) Record of re-assessment of the degree of work ability decrease after treatment of recurrent injury or disease of the Medical Assessment Council.
- e) Designation of medical examination and treatment facility, orthopedic or functional rehabilitation facility according to regulations on provision of living aids and orthopedic devices (if any).

➤ **Settlement of the labor accident or occupational disease allowance regime for employees who have received a lump-sum or monthly benefit and suffer an occupational accident, a new occupational disease or infected with HIV / AIDS due to an accident Occupational risks are assessed collectively (Article 7)**

1. For an employee who has a lump-sum or monthly work accident or occupational disease allowance and has suffered a new work accident or an occupational disease from January 1, 2007, depending on the degree of failure reduced working capacity due to a work accident or an occupational disease after a general assessment to settle benefits for occupational accidents and diseases, in which:

a) The rate of subsidy calculated according to the new working capacity decrease that is calculated according to the base salary in the month with the conclusion of the general assessment of the Medical Assessment Council or the month, in that the certificate of HIV / AIDS infection is issued. .

b) The rate of benefit calculated according to the number of years of payment to the occupational accident and disease insurance fund after the general assessment is calculated according to the number of years of payment to the occupational accident and disease insurance fund up to the time of Final occupational accident and disease and monthly salary paid to the occupational accident and disease insurance fund as prescribed in Clause 7, Article 4 of this Circular of the time of occupational accident or determined having the ultimate occupational disease.

2. An employee who suffers from a work accident or an occupational disease when participating in occupational accident and occupational disease insurance under many labor contracts, then continues to suffer from a work accident or an occupational disease at the time of the number of labor contracts for occupational accidents and diseases participating in occupational accident and disease insurance with the number of labor contracts is less than the number of labor contracts when having the last work accident or occupational disease. The rate of subsidy according to the number of years paid to the occupational accident and disease insurance fund, after being calculated according to Clause 1 of this Article, is lower than the current rate, the current entitlement rate remains.

3. The time for enjoying benefits is counted from the month when the employee completes the treatment or is discharged from the hospital after the last treatment of occupational accident or disease or from the month when the conclusion of the Medical Examination Council is obtained in the absence of inpatient treatment or in the absence of definite time of stable treatment, discharge from hospital.

4. A dossier for a person who suffers from a work accident or an occupational disease after a general assessment due to continued occupational accident or an occupational disease includes:

a) Social insurance book; A valid copy (is an authenticated copy from the master register or a copy from the original or a copy that has been compared with the original) of the dossier for entitlement to benefits for occupational accidents and diseases, for cases already settlement of benefits for labor accidents and occupational diseases.

b) Certificate of discharge or an extract of medical records after receiving treatment for the occupational accident or occupational disease of the last inpatient treatment.

c) Record of investigation of occupational accident; In case of a traffic accident which is determined to be an occupational accident, one of the following papers is additionally required: Record of scene examination, map of the scene of the traffic accident or record of traffic accident of the facility. police officer or military criminal investigation agency in case of treatment is completed, discharged before July 1, 2016 without assessment of working capacity decrease.

d) The results of environmental measurement with hazardous and toxic factors for the case where the treatment is completed and discharged before July 1, 2016 without assessment of the degree of working capacity decrease.

dd) Record of assessment of the degree of working capacity decrease, made by the Assessment Council of the Medical Assessment Council; In case of previous occupational accident or disease whose working capacity decrease has been assessed but ineligible for benefit, there is an additional record of assessment of the degree of work ability decrease of this assessment.

e) A written request for the settlement of the work accident or occupational disease regime according to the form for the last time of work accident or occupational disease; In case the previous time of having a work accident or an occupational disease but the benefits have not been settled, a written request for settlement of the unit where the previous occupational accident or disease occurred is required.

g) Designation of medical examination and treatment facility, orthopedic and functional rehabilitation facility according to regulations on provision of living aids and orthopedic devices (if any).

➤ **Order and dossier for settlement of the occupational disease regime for employees who have retired or no longer work in occupations or jobs at risk of occupational disease (Article 10)**

1. In cases where an employee has retired or quit his job but is still in the guarantee period, he / she shall send his / her personal health record to the occupational disease examination establishment for occupational disease examination, after receiving the result of occupational disease examination, the occupational disease facility shall complete the dossier of occupational disease examination for employees according to regulations of the Ministry of Health.

2. In cases where the employees change jobs no longer work in occupations or jobs at risk of occupational diseases but also during the guarantee period, the employees shall send their personal health records to the medical examination establishments. The employee or the employer where the employee is working shall prepare an occupational disease examination dossier on the basis of the health management dossier after the occupational disease examination for detection of occupational diseases for workers.

The occupational accident and disease insurance fund pays the full cost of occupational disease examination for the cases specified in Clauses 1 and 2 of this Article after being paid by health insurance.

3. After completing the dossier of occupational disease examination, the employee shall take the initiative to examine for assessment of the degree of working ability decrease or request the unit where the employee used to work or is working to introduce it.

4. After having the result of assessment of the working capacity decrease of 5% or more, then send the dossier to the social insurance agency at provinces and cities to deal with occupational disease regimes.

5. The time for enjoying occupational disease benefit is counted from the month with the conclusion of the Medical Assessment Council.

3.5.2. Approval standards for occupational injuries and diseases

3.5.2.1. Approval standards for occupational injuries

Occupational accident by OSH Law (2015) means an accident causing injury to any part or function of the body or causing death to employees, which happens during the working process and is closely related to the performance of the assigned work or task.

➤ **Classification of occupational accidents (OAs):**

○ **Occupational injury causing death in the following cases**

- At workplaces where the accident happened;
- On the way or during the emergency
- During treatment or due to recurrence of wounds as stated in the forensic medical examination records
- The declaration by the court's conclusion

○ **Serious OAs:** at least one of the injuries specified in Appendix II to the Gov. Decree No. 39/2016/ND-CP as follows:

01 Injuries on the Head, face, neck

011 Open or closed cranial trauma;

012 Crushed brain;

013 Intracranial hematoma;

014 Broken skull;

015 Scalp peeling;

016 Injured pupil;

017 Fracture and bruising of the scapula;

018 Broken facial bones;

019 Injured large soft tissues on the face;

0110 Injured neck, damaging the larynx and esophagus

02 Injuries on the chest and abdomen

021 Injured chest harms internal organs;

022 Median mediastina pressure syndrome;

023 Injured chest or chest is severely pressed;

024 Broken ribs;

025 Injured large soft tissues on the abdomen;

026 Abdominal trauma and crush damage to internal organs;

027 Perforation, rupture of organs in the abdomen;

028 Touching, crushing, affecting the movement of the spine;

029 Spine fracture or dislocation;

0210 Pelvic fracture;

0211 Pelvic injury greatly affects movement of the body and lower extremities;

0212 Injured genital organs

03. Injuries in the upper extremities

031 Injured bones, nerves, blood vessels affecting movement of the upper limbs;

032 Widespread soft tissue injuries in the upper extremities;

033 Injured shoulder, arm, hand, or wrist, causing tendons damage;

034 Crushed, fractured, shattered collarbone, shoulder, arm, forearm, wrist, hand, knu04

04. Lower extremities

041 Injured lower extremities causes damage to blood vessels, nerves and bones, affecting movement of the lower extremities;

042 Large injuries on the lower extremities;

043 Broken and bruised hip, hip joints, thigh, knee, tube, ankle, foot and toes joints;

035 Dislocated joints.

05 Burns

051 3rd degree burns;

052 2nd degree, 3rd degree burns due to widespread heat;

053 Severe burns caused by chemicals at degree 2 or 3;

054 Severe electric burns;

055 A degree 3 cold burn;

056 2nd degree, 3rd degree cold burns

06 Severe poisonings caused by the following substances

061 Carbon monoxide: fainting, delirium, skin nutritional disturbance, pneumonia, state of shock, psychological fatigue, drowsiness, memory impairment, marked changes in the cardio-vascular system;

062 Nitrogen oxide: complete pneumonia; complicated or uncomplicated form of bronchitis;

063 Hydrogen sulphide: strong irritation, epilepsy possible pneumonia, delirium;

064 High concentrations of carbon monoxide: apnea, then slow breathing, bleeding in the nose, mouth and intestines, weakness, fainting;

065 Acute toxicity of plant protection chemicals;

066 Acute toxicity of other toxic chemicals on the declared and registered list.

- **Light OAs:** the OAs do not belong to deaths and serious OAs
- Conditions for enjoying the occupational accident regime (OSH Law, Article 45):
Employees participating in occupational accident and disease insurance are entitled to the occupational accident regime if they fully meet the following conditions:

1. Having an accident in one of the following cases:
 - a/ At the workplace and during working hours, even when they are doing personal activities at the workplace or during working hours allowed by the Labor Code and regulations of their production or business establishment, including breaks between working hours, mid-shift meals, inkind meals, menstruation breaks, shower time, breastfeeding time, and toilet use;
 - b/ Outside the workplace or out of working hours while performing a task requested by the employer or a manager authorized by the employer in writing;
 - c/ On the way going to or coming back from the workplace along a reasonable route and within a reasonable time;
2. Having their working capacity decreased by at least 5% due to the accident prescribed in Clause 1 of this Article;
3. Employees are not entitled to the regime paid by the Occupational Accident and Disease Insurance Fund if they fall into one of the cases specified in Clause 1, Article 40 of this Law.

3.5.2.2. Approval standards for occupational injuries and diseases

- *Definition of Occupational disease by OSH Law (2015):* an illness caused to employees by their hazardous working conditions.
- Circular 15/2016/TT-BYT dated 15/5/2016 by MOH: This Circular provides the list of compensated occupational diseases eligible for social insurance and provides guidance on diagnosis and assessment of occupational diseases: diagnosis and medical expertise criteria. If employee who suffer from any disease during work that is included in the list of compensated ODs and meet the criteria of diagnosis and medical expertise in this Circular, can be entitled OD victim and get social compensation depending on the percentage of decreased work capacity. Each occupational disease is described in this Circular with the following parts:
 - Definition of OD,
 - Occupational factor causing OD;
 - Common exposed jobs/occupations;
 - Minimum exposure limit (is the lowest exposure to harmful factors during work that can cause occupational disease).
 - Minimum exposure time (is the shortest time of exposure to harmful factors in the working process causing occupational diseases);
 - Minimum exposure time is the shortest time of exposure to harmful factors in the working process in order to cause occupational diseases.

- Guaranteed period (is the period from the time the employee is away from exposure to the harmful factor to the time when the disease is still likely to develop due to such harmful factor);
 - Diagnosis criteria (including clinical and para-clinical criteria);
 - Progression, complications of OD
 - Combination disease
 - Differential diagnosis
 - Medical expertise Guide including the table of percentage of injured body caused by an occupational disease (percentage of decreased working capacity)
- Conditions for enjoying the occupational disease regime (OSH Law, Article 46)
1. Employees participating in occupational accident and disease insurance are entitled to the occupational disease regime if they fully meet the following conditions:
 - a/ Getting an occupational disease on the list of compensated occupational diseases issued by the Minister of Health;
 - b/ Having their working capacity decreased by at least 5% caused by a disease prescribed at Point a of this Clause.
 2. After retiring or no longer performing the occupation or job at risk of occupational diseases on the list of compensated occupational diseases issued by the Minister of Health, if the employee is detected to have got an occupational disease within the prescribed time, he/she may be provided with medical assessment for consideration and provision of the regime under regulations of the Government.

3.5.3. Occupational disease list:

The list of 34 compensated Occupational Diseases in Vietnam:

*** *Group I: Occupational Pneumoconiosis and bronchial diseases:***

1. Silicosis
2. Asbestosis
3. Byssinosis
4. Occupational chronic bronchitis
5. Asthma
6. Talcosis
7. Coal lung diseases

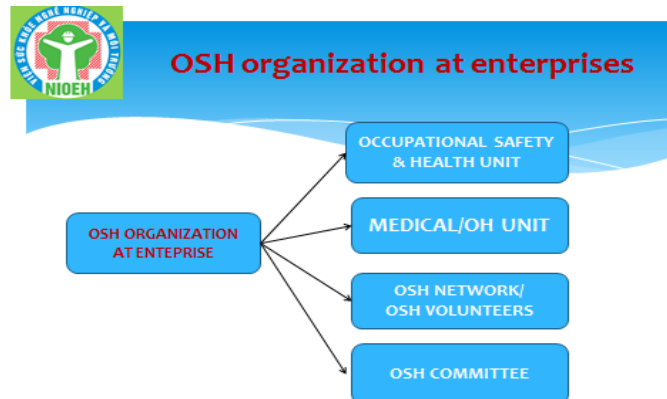
*** *Group II: Occupational poisonings:***

8. Lead poisoning

9. Benzene poisoning
10. Mercury poisoning
11. Manganese poisoning
12. TNT (trinitrotoluene) poisoning
13. Arsenic and Arsenic compound poisoning
14. Pesticide poisoning
15. Nicotine poisoning
16. Carbon monoxide poisoning
17. Cadmium poisoning
- * ***Group III: Occupational Diseases due to physical factors***
 18. Noise Induced Hearing Loss
 19. Diseases caused by compressed or decompressed air
 20. Diseases caused by Whole body Vibration
 21. Diseases caused by Local Vibration
 22. Diseases caused by ionizing radiations
 23. Occupational Cataracts
- * ***Group IV: Occupational Skin diseases***
 24. Occupational oil acne diseases
 25. Occupational Mellanosis
 26. Irritant contact dermatoses caused by Chromium
 27. Skin disease caused by prolonged exposure to wet and cold environments
 28. Occupational skin disease caused by exposure to natural rubber, chemical additives
rubber
- * ***Group V: Occupational Infectious Diseases***
 29. Leptospirosis
 30. Hepatitis Virus B
 31. Tuberculosis
 32. Hepatitis Virus C
 33. HIV infection by occupational accident
- * ***Group VI: Occupational Cancers***
 34. Mesothelioma

3.6. Workplace Organization for OSH Management

3.6.1. Workplace organization for OSH management by regulations:



❖ Occupational safety and health units (According to Article 72 of OSH Law)

1. Based on the size and characteristics of work, risks of occupational accidents and diseases, and working conditions, employers shall assign occupational safety and health officers or establish an occupational safety and health unit at their establishments. The Government shall detail this Clause.
2. Occupational safety and health officers or the occupational safety and health unit shall assist and advise the employer in the implementation of occupational safety and health in the production and business establishment, with the following major tasks:
 - a) Formulating regulations, procedures and measures to ensure occupational safety and health and prevent and fight fires and explosions;
 - b) Making, and monitoring the implementation of, annual plans on occupational safety and health; assessing risks and making emergency rescue plans;
 - c) Managing and monitoring the notification and inspection of machinery, equipment, supplies and substances subject to strict requirements for occupational safety and health;
 - d) Organizing occupational safety and health information, communication and training activities; organizing first aid and emergency care, and prevention and control of occupational diseases for employees;
 - e) Organizing occupational safety and health self-examination; investigating in accordance with law occupational accidents and technical incidents endangering occupational safety and health; f/ Assuming the prime responsibility for, and coordinating with the health unit in, monitoring and controlling dangerous factors and hazardous factors;

- f) Summarizing, and requesting the employer to deal with, recommendations on occupational safety and health of inspection teams, examination teams and employees;
 - g) Coordinating with the establishment's trade union executive committee in guiding the performance of tasks of occupational safety and health workers;
 - h) Organizing emulation, commendation and reward, disciplining, statistical work and reporting on occupational safety and health.
3. Occupational safety and health officers and occupational safety and health units have the following rights:
 - a) To request the heads of production units to order work suspension, or to temporarily suspend work in emergency circumstances if detecting risks of occupational accidents in order to implement occupational safety and health measures and at the same time report it to the employer;
 - b) To stop the operation of machinery and equipment that fail to meet safety requirements or have expired;
 - c) To be sent by the employer to training and refresher courses to improve occupational safety and health knowledge and skills in accordance with law.
 4. Occupational safety and health officers must have technical knowledge, skills and good understanding of practical production and business activities of their establishment.
 5. In case a production and business establishment cannot arrange occupational safety and health officers or form an occupational safety and health unit as prescribed in Clauses 1 and 4 of this Article, it shall hire a qualified organization as prescribed by law to perform occupational safety and health tasks prescribed in Clause 2 of this Article

❖ **Health units (According to Article 73 of OSH Law)**

1. Based on the size and characteristics of work, risks of occupational accidents and diseases, and working conditions, employers shall assign health workers or form a health unit responsible for taking care of and managing employees' health. The Government shall detail this Clause.
2. Health workers or health units shall assist and advise employers in managing, and directly manage, employees' health with the following major tasks:
 - a) Preparing plans and facilities for first aid and emergency care, essential drugs, and scenarios of emergency rescue for victims of occupational accidents; organizing training in first aid and emergency care for employees in their establishments;

- b) Planning and organizing health check-up, medical examination to detect occupational diseases, medical assessment to determine the level of working capacity decrease for employees getting occupational accidents and diseases, convalescence and working function rehabilitation, and counseling on measures to prevent and control occupational diseases; and proposing assignment of jobs suitable to employees' health;
- c) Providing medical examination and treatment of common diseases at their establishments and rendering first aid and emergency care for victims of occupational accidents and technical incidents endangering occupational safety and health under regulations;
- d) Communicating and disseminating information on occupational safety and health, prevention and control of occupational diseases, and health improvement at the workplace; examining the observance of sanitation regulations, organize prevention and control of epidemics, ensure food safety and hygiene for employees in their establishments; and organizing provision of in-kind allowances under regulations;
- dd/ Collecting and managing information on occupational safety and health at the workplace; organizing working environment monitoring to assess hazardous factors; and managing health records of employees and victims of occupational diseases (if any);
- e) Coordinating with the occupational safety and health unit in performing relevant tasks prescribed in Clause 2, Article 72 of this Law.

3. Health workers and health units have the following rights:

- a) To require heads of production units to order work suspension, or decide to temporarily suspend work in emergency circumstances when detecting signs of violation or risks that are likely to cause harm, diseases and illnesses to employees and at the same time report on the situation to the employer; to manage medical equipment and facilities, drugs to serve first aid and emergency care at the workplace; to guide employees in their establishments on first aid and emergency care;
- b) To stop the use of substances that fail to meet occupational safety and health requirements;

- c) To be sent by the employer to meetings and seminars with local health agencies or health agencies of ministries and sectors to improve professional knowledge and coordination.
4. Health workers at the establishment must possess health qualifications and certificates of occupational health.
5. In case an establishment cannot arrange health workers or form a health unit as prescribed in Clauses 1 and 4 of this Article, it shall sign a contract with a qualified health establishment as prescribed by the Minister of Health to provide health care for its employees as prescribed in Clause 2 of this Article.

❖ **Occupational safety and health workers (According to Article 74 of OSH Law)**

1. Each production group in production and business establishments must have at least one part-time occupational safety and health worker during the working hours. The employer shall issue a decision on the establishment and regulations on the operation of the network of occupational safety and health workers after consulting the establishment's trade union executive committee, if any;
2. An occupational safety and health worker must be a direct employee who possesses occupational safety and health knowledge and techniques, is voluntary and exemplary in observing occupational safety and health regulations and is elected by employees in his/her group.
3. Occupational safety and health workers shall work under the management and guidance of the establishment's trade union executive committee in accordance with the regulations on the operation of the network of occupational safety and health workers; coordinate technically with occupational safety and health officers or occupational safety and health management unit, health workers or health unit at their establishment in the performance of their tasks.
4. Occupational safety and health workers have the following obligations:
 - a) To urge, remind and instruct every person in groups, teams and workshops to strictly obey occupational safety and health regulations, preserve safety devices and personal protective equipment; to remind the heads of groups, teams and workshops to obey occupational safety and health regulations;
 - b) To supervise the implementation of occupational safety and health standards, procedures and regulations, detect wrongdoings and violations related to

occupational safety and health, and unsafe and unhygienic machinery, equipment, supplies, substances and workplace;

- c)* To participate in the making of occupational safety and health plans and the instruction of safe working measures to new employees in the group;
- d)* To propose the head of the group or supervisors to fully implement regulations on labor protection and occupational safety and health measures, timely deal with unsafe and unhygienic machinery, equipment, supplies, substances and workplace;
- e)* To report to trade unions or labor inspectorates upon the detection of occupational safety and health violations at the workplace or unsafe machinery, equipment, supplies and substances subject to strict requirements for occupational safety and health which have been reported to the employer but have not been dealt with.

5. Occupational safety and health workers have the following rights:

- a)* To be provided with adequate information on measures used by the employer to ensure occupational safety and health at the workplace;
- b)* To spend part of their working hours to perform tasks of occupational safety and health workers while still getting paid for the time of performance of these tasks and enjoying a responsibility allowance. The level of responsibility allowance shall be agreed by the employer and the establishment's trade union executive committee, and shall be stated in the regulations on the operation of the network of occupational safety and health workers;
- c)* To request employees in the group to stop working for implementing occupational safety and health measures if seeing imminent risks that are likely to cause incidents or occupational accidents, and take responsibility for such request;
- d)* To participate in training and refresher courses to improve their professional knowledge and working methods.

3.6.2. OSH committee:

❖ Establishment's occupational safety and health committee (According to the Article 7 of OSH Law)

1. Based on the size and characteristics of work, risks of occupational accidents and diseases, and working conditions, employers shall establish occupational safety and health committees in their establishments. The Government shall detail this Clause as follows:
 - a) Establish an OSH Committee in the following cases:

- For the mining, coke production, refined petroleum, chemicals & metal production and products from metal, non-metallic mineral products, shipbuilding, ship building and repair, power generation, transmission and distribution with >300 workers
 - Others with >1,000 workers
 - Economic groups, State corporations
- b) Others can establish an OSH Committee if it finds necessary and qualified to operate.
2. The occupational safety and health committee has the following tasks and powers:
- a) To advise and coordinate with the employer in formulating regulations, procedures, plans and measures to ensure occupational safety and health at the production and business establishment;
 - b) To organize annual dialogues at the workplace between employees and the employer to share information, increase understanding, promote equal and safe working conditions for employees; to improve the effectiveness of the implementation of occupational safety and health policies and laws in the production and business establishment;
 - c) To examine the implementation of occupational safety and health activities in the production and business establishment;
 - d) To request the employer to implement remedies if finding risks of unsafe and unhygienic problems.
3. The occupational safety and health committee shall be composed of:
- a) A representative of the employer as the committee president;
 - b) A representative of the establishment's trade union executive committee, or a representative of the collective of employees in the establishment where there is no trade union, as the committee's vice president;
 - c) Occupational safety and health officer of the production and business establishment as the standing member cum secretary of the committee;
 - d) Health workers in the establishment;
 - e) Other related members. The committee must ensure a certain percentage of female members in accordance with the gender equality principle and the practical situation of the establishment.

3.6.3. OSH training at workplaces(see more details in Item 3.8.1.12):

➤ **OSH Law, Article 14 regulates the training in occupational safety and health as follows:**

1. Occupational safety and health managers, occupational safety and health officers, health workers and occupational safety and health workers at production and business establishments shall participate in occupational safety and health training and may obtain a certificate from the occupational safety and health training institution after passing an examination. In case there is a change in occupational safety and health policies and laws or science and technology, these persons shall be retrained to update their occupational safety and health knowledge and skills.

2. Employers shall organize training for employees performing jobs subject to strict requirements for occupational safety and health and provide them with safety cards before assigning them to such jobs.

3. Employees without labor contract shall be trained in occupational safety and health before performing jobs subject to strict requirements for occupational safety and health and provided with safety cards.

The State shall adapt policies to support part of training fee for employees participating in the training mentioned in this Clause. The levels of support, eligible trainees and support duration shall be prescribed in detail by the Government depending on the socio-economic development conditions in each period.

4. Employers shall organize occupational safety and health training by themselves and are responsible for the quality of such training for employees other than those specified in Clauses 1, 2 and 3 of this Article, and apprentices, interns and employees on probation prior to recruitment or assignment of jobs; and provide periodical retraining in order to equip enough knowledge and skills needed to ensure occupational safety and health during the working process and suitable to their assigned jobs.

5. The occupational safety and health training prescribed in this Article must conform to the characteristics and nature of each profession and working position and number of employees, and must not cause difficulties to production and business activities. Depending on specific conditions of each production and business establishment, employers shall take the initiative in organizing separate training in occupational safety and health or combined training in occupational safety and health and fire prevention and fighting or other contents specified by specialized laws.

6. The Minister of Labor, War Invalids and Social Affairs shall promulgate the list of jobs subject to strict requirements for occupational safety and health after consulting ministries managing related sectors or fields.

7. Occupational safety and health training institutions include public non-business units and enterprises providing occupational safety and health training service in accordance with the investment law and this Law. In case an enterprise organizes occupational safety and health training by itself for the subjects defined in Clauses 1, 2 and 3 of this Article, it must meet the conditions applicable to occupational safety and health training institutions.

8. The Government shall prescribe in detail agencies competent to grant, conditions on physical and technical foundations, criteria for occupational safety and health trainers, the order, procedures and dossiers for granting, re-granting, extending or revoking certificates of eligibility for occupational safety and health training to the institutions defined in Clause 7 of this Article; and occupational safety and health training and self-training.

3.7. Personnel engaged in the area of OSH

3.7.1. Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists

3.7.1.1. Legal qualification Requirements of the full-time OSH officer:

1. The full-time occupational safety officer must satisfy one of the following conditions:

- a) Having university degrees in technical disciplines; have at least 01 year of experience working in the field of business and production of the establishment;
- b) Having college degree in technical disciplines; have at least 03 years of experience working in the field of business and production of the establishment;
- c) Having intermediate qualifications in the technical specialties or directly doing technical jobs; has 05 years of experience working in the field of production and business of the establishment.

2. Part-time occupational safety officer must satisfy one of the following conditions:

- a) Having university degrees in technical disciplines;
- b) Having college degree in technical disciplines; have at least 01 year of experience working in the field of business and production of the establishment;

c) Having intermediate qualifications in the technical specialties or directly doing technical jobs; has 03 years of experience working in the field of production and business of the establishment.

3.7.1.2. Legal qualification Requirements of health staffs (occupational physicians, nurses, etc.)working in medical center/division at enterprise:

1. A person performing medical/health care activities at an enterprise/production and business establishment must fully satisfy the following conditions:
 - a) Having medical qualifications including: general doctors/practitioners, preventive medicine doctors, bachelor of nursing, physician/doctor assistants, nurses with intermediate levels midwives;
 - b) Having a certificate of professional occupational health (*see more details the certificate training program on occupational health in Item 3.8.12*)
2. The employer must notify the information of health staffs to the Department of Health of the province where the establishment is headquartered.
3. In case the establishment cannot arrange a health staffs or cannot establish a medical division, the business and production establishment shall comply with regulations as the followings:
 - a) Sign a contract with a qualified medical facility as follows: provide a sufficient number of medical personnel as prescribed in the Article of minimum requirement of number of medical staffs; to be present promptly at the business and production establishment when an emergency occurs within 30 minutes for the plain, town or city and 60 minutes in the mountainous, remote and isolated areas;
 - b) Notify the information of the above medical facility to the Department of Health of the province where the head office is located.

3.7.1.3. Legal qualification Requirements of occupational disease doctors

1. A medical doctor performing occupational disease detection must fully satisfy the following conditions:
 - a) Having medical qualifications including: general doctors/practitioners, and specialized doctors

b) Having a certificate of professional occupational disease.

2. The content of Occupational disease certificate training program

Minimum training time: 03 months. For occupational disease-oriented specialty training comply with current regulations (9 months). However, from 2020, there is no more the 9 months course training on occupational disease-oriented specialty

a) Overview of occupational diseases

b) Basic respiratory disease overview, basic ear, nose and throat disease

c) Outline of basic dermatological diseases

d) Overview of basic cardiovascular disease

e) Group of occupational respiratory diseases, basic diagnostic techniques and preventive measures

f) Reading technique of pneumoconiosis is according to classification guidelines of the International Labor Organization

g) Group of diseases caused by occupational physical factors, basic diagnostic techniques and preventive measures

h) Group of occupational infections, basic diagnostic techniques and preventive measures

i) Group of occupational skin diseases, basic diagnostic techniques and preventive measures

j) Group of occupational diseases caused by biological agents, basic diagnostic techniques and preventive measures

k) Synthesize data, report and propose advice on effective prevention of occupational diseases in the working environment

l) Clinical practice at occupational disease examination facilities and laboratory practice

3. Training Institutions:

- The National Institute of Occupational & Environmental Health

- Hanoi Medical University, Institute of Preventive medicine Training and Public Health

- Qualified Institutions in occupational diseases

3.7.1.4. Legal qualification Requirements of occupational hygienists who involved in working environment monitoring

Gov. Decree No. 44/2016/ND-CP, Article 33 prescribed Conditions of the organization operating working environment monitoring including requirement of human resource:

The working environment monitoring organization must satisfy the following conditions:

1. Non-business units or enterprises providing working environment monitoring services.

2. Having enough human resources to perform the working environment monitoring as follows:
 - a) The person directly in charge of working environment observation has the following qualifications:
 - Bachelor's degree or higher in the fields of health, environment, biochemistry;
 - Have at least 02 years of experience in the field of working environment observation or 05 years of experience in the field of preventive medicine;
 - Having a training certificate in working environment monitoring.
 - b) Having at least 05 people working under contract with term from 12 months or more or contract with indefinite term with qualifications as follows:
 - Intermediate or higher qualification in the fields of health, environment, biochemistry; in which at least 60% of people have university degrees or higher;
 - Having a training certificate in working environment monitoring

*** The contents of certificate training on working environment monitoring:**

- Minimum training time: 01 month.
- Content:
 1. General introduction on occupational safety and health
 2. Make a working environment monitoring plan
 3. Method of measuring and evaluating physical factors in working environment
 4. Method of measuring and evaluating dust elements in working environment;
 5. Method of measuring and evaluating chemical factors in working environment
 6. Method of measuring and evaluating psycho-physiological and ergonomic factors at work
 7. Assessment of occupational exposure for microbiological factors, allergens, and carcinogenic factors, ...
 8. Fieldwork and practice at the labor establishment to observe the working environment
 9. Synthesize data, report and propose advice on effective prevention of harmful factors in the working environment
- Training institutions: qualified Institutions under management of MOH such as the National Institute of Occupational & Environmental Health (NIOEH); Institute of Public Health in HoChiMinh City, Pasteur Institute

3.7.2. Minimum staffing standards for personnel engaged in the area of OSH

***Occupational safety Unit/Division (OSH Law & Gov. Decree 39/2016, Article 36):**

The organization of the occupational safety division under Clause 1, Article 72 of the Law on occupational safety and health is specified as follows:

1. For production and business establishments operating in the fields and lines of mining, production of coke coal, production of refined petroleum products, chemical production, metal production and products from metal, manufacture of non-metallic mineral products, construction of construction works, building and repairing ships, producing, transmitting and distributing electricity, employers must organize occupational safety Units/division that meets the following minimum requirements:

a) The business and production establishments that employ less than 50 people must arrange at least 01 part-time OSH officer to perform the work of occupational safety

b) The business and production establishments that employ between 50 and less than 300 employees must arrange at least 01 full-time OSH officers to perform the work of occupational safety;

c) The business and production establishments that employ between 300 and less than 1,000 employees must arrange at least 02 full-time OSH officers to perform the work of occupational safety;

d) The business and production establishments that employ more than 1,000 employees must establish the occupational safety division or arrange at least 03 full-time OSH officer to perform the occupational safety.

2. For production and business establishments operating in fields and trades other than those specified in Item 1 above, employers must organize a occupational safety division that meets the following minimum requirements:

a) The business and production establishments that employ less than 300 people must arrange at least 01 part-time OSH officer to perform the work of occupational safety;

b) The business and production establishments which employ from 300 to less than 1,000 employees must arrange at least 01 full-time OSH officer to perform the occupational safety;

c) The business and production establishments that employ more than 1,000 employees must establish an occupational safety division or arrange at least 2 full time OSH officers to perform the occupational safety.

***Health Unit/Center (Article 73 of OSH Law & Article 37 of Gov. Decree 39/2016):**

The organization of the medical division specified in Clause 1, Article 73 of the Law on occupational safety and sanitation is specified as follows:

1. For production and business establishments in the fields and industries of processing and preserving aquatic products and products from aquatic products, mining, manufacturing textile products, garment, leather, shoes, coke production, chemical production, rubber and plastic products manufacturing, scrap recycling, sanitation, metal production, ship building and repair, building materials production, users The employer must organize the medical division at the establishment to ensure the following minimum requirements:

- a) The business and production establishments that employ less than 300 people must have at least 1 health staff with intermediate qualification to perform the health care activities;
- b) The business and production establishments that employ between 300 and less than 500 people must have at least 01 medical doctor / physician and 01 health staff with intermediate qualification to carry out the health care activities;
- c) The business and production establishments that employ between 500 and less than 1,000 employees must have at least 1 medical doctor and each shift must have 01 health staff with intermediate qualification to perform the health care activities;
- d) Production and business establishments that employ at least 1,000 employees must set up health center/ facility in an organized form in accordance with the law on medical examination and treatment.

2. For production and business establishments operating in fields and trades other than those specified in Item 1 above, the employer must organize the medical unit/division at the facility. The medical unit/division ensures the following minimum requirements:

- a) The business and production establishments that employ less than 500 people must have at least 01 health staff with intermediate level to perform the health care activities;
- b) The business and production establishments that employ between 500 and less than 1,000 people must have at least 1 physician and 01 health staff with intermediate level to perform the health care activities;
- c) Production and business establishments that employ more than 1,000 employees must have 1 medical doctor and 1 health staff to do other health care activities.

3.8. Legal Requirements for Workplace Activities for OSH Management

3.8.1. Legal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc.

3.8.1.1. Legal requirements for Control of dangerous factors and hazardous factors at the workplace

➤ **OSH Law, Article 18 prescribed Control of dangerous factors and hazardous factors at the workplace as follows:**

- Employers shall evaluate and control dangerous factors and hazardous factors at the workplace in order to work out occupational safety and health technical measures and take care of employees' health; implement decontamination and disinfection in areas where there are hazardous or infectious elements.
- For hazardous factors with permissible contact limits set by the Minister of Health to control their harm to employees' health, employers shall conduct working environment monitoring to assess hazardous factors at least once a year. Working environment monitoring organizations must meet all required conditions on physical foundations, equipment and manpower.
- For dangerous factors, employers shall regularly control and manage them in accordance with technical requirements to ensure occupational safety and health at the workplace and at least once a year organize inspection and assessment of these factors in accordance with law.

➤ **Decree No. 39/2016 / ND-CP dated May 15, 2016 of the Government providing for the basic contents of controlling dangerous and harmful factors at the workplace as follows:**

- **Contents of control over dangerous and harmful factors at the workplace (Article 4):**

1. Identifying and evaluating dangerous and harmful factors.
2. Determination of the objective and measures to prevent and control the dangerous and harmful factors.
3. Implement and evaluate effectiveness of measures to prevent and control dangerous and harmful factors.

- **Identification and assessment of dangerous and harmful factors (Article 5):**

1. Analysis of Working Condition Characteristics, relevant work procedures and workplace test results.
2. Surveying employees about factors that can cause injury, disease or impair their health in the workplace.

3. In case of failure to identify and assess completely and accurately sensitively, appropriate machines and equipment must be used to measure and test the dangerous or harmful factors; prepare a dossier on occupational environmental sanitation for harmful factors and prevention of occupational diseases using the form specified in Appendix I to this Decree.

- *Determination of objectives and measures to prevent and control the dangerous and harmful factors (Article 6)*

1. Based on the identification and assessment of dangerous and harmful factors, the employer determines the objectives and appropriate measures to prevent and combat the harm of dangerous factors, Harmful factors at the workplace, according to the following priority order:

- a) Eliminate the dangerous and harmful factors right from the stage of workshop design, selection of technology, equipment and materials;
- b) Preventing, limiting exposure, minimizing harms of dangerous and harmful factors by using technical measures and applying organizational and administrative measures (information, propaganda, education and training on OSH; development of rules and procedures for OSH; labor protection regime, health care for employees; management machinery, equipment, materials and substances with strict requirements on OSH).

2. Clearly define the time, place and resources for the implementation of the Goals, take measures to prevent and control the dangerous and harmful factors.

- *Deploying and evaluating effectiveness of measures to prevent and control dangerous and harmful factors (Article 7)*

1. The employer shall guide the employee to take measures to prevent and control the dangerous and harmful factors at the workplace.

2. Employers must plan and organize the inspection and assessment of effectiveness of measures to prevent and combat dangerous and harmful factors at least once a year; For production and business establishments, they must be inspected and evaluated to the level of groups, teams or workshops.

3. The examination of measures to prevent and control the dangerous and harmful factors at the workplace includes the following contents:

- a) Occupational safety and hygiene of machine, equipment, workshop, warehouse and workplace;
- b) Use and preservation of personal protective equipment; fire prevention and fighting means; essential medicines, local first aid and emergency facilities;

- c) The management and use of machinery, equipment, materials and substances with strict requirements on occupational safety and sanitation;
- d) Employee knowledge and ability in emergency response and handling;
- dd) Implementation of the regime of labor protection and health care for employees;
- e) Compliance with recommendations of inspection teams for OSH and investigation of occupational accident.

4. The assessment of effectiveness of measures to prevent and control the dangerous and harmful factors at the workplace includes the following contents:

- a) The implementation of measures to prevent and control the dangerous and harmful factors at the workplace;
- b) Result of improving working conditions.

➤ ***Legal requirements for Working Environment Monitoring (prescribed by Gov. Decree No. 44/2016/ND-CP):***

- Period of monitoring hazardous factors in the working environment: at least once/year and twice/year when very hazardous factors exist, e.g. chemicals, radiation, etc.)
- When the hazardous factors exceed allowed limits under Decision 3733 BYT / QD dated 10/10/2002 and National Technical Regulations of the Ministry of Health, then take measures to correct immediately.
- The measurement and monitoring the working environment must be carried out by qualified organizations in terms of material facilities, equipment and personnel's
- Fee for Working Environment Monitoring is paid by employer.
- Keeping records and profile at enterprise and at the organization doing WE monitoring
- The list of hazardous factors need to be monitored/checked in working environment, including (Gov. Decree No.39/2016/NĐ-CP):
 - Physical factors (micro-climate, e.g. temperature, humidity, air velocity; lighting, noise, vibration, electro-magnetic field, radiation, etc.
 - Dusts (different types, e.g. total and respiratory dust, silica, coal, talc, metal, cotton dusts, etc.)
 - Chemical factors (chemicals, toxic gases, etc.)
 - Psycho-physiological and ergonomic factors, e.g. physical and mental workload, ergonomic factors
 - Biological factors (virus, bacteria, gem, mold, etc.
 - Factors causing hypersensitivity and allergy

3.8.1.2. Legal requirements for hygiene and sanitary facilities at workplace:

Circular No. 19/2016/TT-BYT by MOH: Guideline on Management of Occupational Hygiene, hygiene and sanitary facilities (number of workers/rest room/bath room/tap water for cleaning hand, etc.)

Hygiene and sanitary facilities	Requirements for work shift	Applicable for enterprise with number of employees
1. Pepper pit	11-20 employees/pit	< 300 employees
2. Urinary pit	11-35 employees/pit	>300 employees
	11-20 employees/pit	< 300 employees
3. Bath room	1-20 employees/room	1-300 employees
	21-30 employees/room	3001-600 employees
	30 employees/room	> 600 employees
4. Menstrual rest room	1-30 females/room	1-300 employees
	30 females/room	>300 employees
5. Water tap	15-20 employees/tap	<300 employees
	35 employees/tap	> 300 employees
6. Nơi để quần áo	1 person/drawer box, or hang hook, or locker.	Applicable for enterprises exposed to hazardous, infectious and poisonous factors/risk of causing occupational diseases.

3.8.1.3. Legal requirements for Pre-employment Health Examination

- Employers shall organize health check-up for new employees before assigning jobs to them in order to place employees to works suitable for their health, to identify occupational diseases later and to develop health profile for each employee
- Content of health check-up is followed by the Circular No. 14/2013 / TT-BYT dated 6 May 2013 by MOH
- The results of health check-up, health classification are followed by the Decision No.1613/QĐ-BYT dated 5 August 1997 by MOH
- Development of health profile for employees in general is followed by the Circular No. 14/2013 / TT-BYT dated 6 May 2013 by MOH; for employees at risk occupational

diseases is followed by the Circular No. [28/2016/TT-BYT](#) dated 30 June 2016
Guidelines for management of occupational diseases

3.8.1.4. Legal requirements for Periodic Health Examination:

- Employers shall provide health check-up for employees at least once a year; employees performing heavy, hazardous and dangerous occupations or jobs or extremely heavy, hazardous and dangerous occupations or jobs, employees with disabilities, minor employees and elderly employees shall be provided with health check-up at least once every six months.
- When taking health check-up, female employees shall be provided with obstetric examination; people working in an environment where there are factors likely to cause occupational diseases are entitled to medical examination for detection of occupational diseases.
- Content of health check-up is followed by the Circular No. 14/2013 / TT-BYT dated 6 May 2013 by MOH
- The results of health check-up, health classification are followed by the Decision No.1613/QĐ-BYT dated 5 August 1997 by MOH
- Development of health profile for employees in general is followed by the Circular No. 14/2013 / TT-BYT dated 6 May 2013 by MOH; for employees at risk occupational diseases is followed by the Circular No. [28/2016/TT-BYT](#) dated 30 June 2016
Guidelines for management of occupational diseases
- Expenses for health check-up for employees paid by employers

3.8.1.5. Legal requirements for Employment placement Health Examination

- Employers shall organize health check-up for employees before assigning jobs to them and before moving them to heavier, more hazardous or more dangerous occupations or jobs or when they return to work after having treatment of occupational accident/ injuries or diseases, except when their health has been examined by a Medical Council to assess their working capacity decrease.
- Content of health check-up and development of health profile is followed by the Circular No. [28/2016/TT-BYT](#) dated 30 June 2016 Guidelines for management of occupational diseases by MOH (Annex II). The para-clinical examination (including testing, diagnostic image, etc.) should be suitable for that are exposed by employees at workplaces

- The results of health check-up, health classification are followed by the Decision No.1613/QĐ-BYT dated 5 August 1997 by MOH
- Expenses for health check-up for employees paid by employers

3.8.1.6. Legal requirements for Occupational Disease Detection

- Employers shall provide to employees medical examination for detection of occupational diseases at health establishments that meet professional and technical requirements and conditions.
- Employers shall send employees who are diagnosed of occupational diseases to health establishments that meet professional and technical conditions for treatment under the treatment guidelines issued by the Minister of Health.
- Period of taking OD detection: 1 time/year, 1 time/6 months for heavy, hazardous and dangerous jobs/works
- Contents of OD Detection include personal and occupational information; followed by the Annex 4 of the Circular 28/2016/TT-BYT by MOH that determine examination contents of 34 compensated occupational diseases. Examples of Examination contents of some occupational diseases as follows:

No.	Occupational Diseases	Hazardous factors	Examination contents	
			Clinical Examination	Para-Clinical Examination
1.	Silicosis	Silica dusts	Respiratory and Cardio-vascular systems	- Lung X-ray; Respiratory function. - CT scan, find AFB in sputum (if needed).
2.	Asbestosis	Asbestos dusts	Respiratory and Cardio-vascular systems	- Lung X-ray; Respiratory function. - CT scan, find AFB in sputum (if needed).

3.	Byssinosis	Cotton, jute, linen, hemp dusts	Respiratory and Cardio-vascular systems ENT examination.	- Respiratory function. - Skin picking test - Blood formula - Lung X-ray, Pharmacokinetic test, IgE, IgG in blood (if needed). - Bronchial recovery test (if needed).
4.	Chronic Bronchitis	Factors causing bronchitis	Respiratory and Cardio-vascular systems	- Respiratory function - Lung X-ray (if needed)

- Criteria for diagnosis of 34 compensated occupational diseases are regulated in the Circular 15/2016/TT-BYT dated 15 May 2016: Regulations on compensated occupational diseases: 34 compensated ODs; diagnosis and medical expertise criteria
- Expenses for medical examination for detection of occupational diseases, and treatment of occupational diseases for employees paid by employers, shall be accounted as deductible expenses for determination of taxable incomes in accordance with the Law on Enterprise Income Tax and as regular operation expenditures in administrative agencies and non-business units that have no service activities.

3.8.1.7. Legal requirements for Periodic Occupational Disease Examination

- Employees who are already getting occupational diseases, shall be taken periodic Occupational Disease Examination
- The interval and the contents of Periodic OD Examination is followed by the Annex 6 of the Circular No. 28/2016 / TT-BYT by MOH that determine the interval and examination contents of 34 compensated occupational diseases. Examples of interval of taking periodic OD examination and examination contents of some occupational diseases as follows:

No.	Occ. Diseases	Interval	Examination contents	
			Clinical Examination	Para-Clinical Examination

1.	Silicosis	12 months	Respiratory and Cardio-vascular systems	- Lung X-ray; Respiratory function. - CT scan, find AFB in sputum (if needed).
2.	Asbestosis	12 months	Respiratory and Cardio-vascular systems	- Lung X-ray; Respiratory function. - CT scan, find AFB in sputum (if needed).
3.	Byssinosis	12 months	Respiratory and Cardio-vascular systems ENT examination.	- Respiratory function. - Skin picking test - Blood formula - Lung X-ray, Pharmacokinetic test, IgE, IgG in blood (if needed). - Bronchial recovery test (if needed).
4.	Chronic Bronchitis	6 months	Respiratory and Cardio-vascular systems	- Respiratory function - Lung X-ray (if needed)

- Criteria for diagnosis of 34 compensated occupational diseases are regulated in the Circular 15/2016/TT-BYT dated 15 May 2016: Regulations on compensated occupational diseases: 34 compensated ODs; diagnosis and medical expertise criteria
- Expenses for medical examination for detection of occupational diseases, and treatment of occupational diseases for employees paid by employers, shall be accounted as deductible expenses for determination of taxable incomes in accordance with the Law on Enterprise Income Tax and as regular operation expenditures in administrative agencies and non-business units that have no service activities.

3.8.1.8. Legal requirements for handling technical incidents and first aid at workplace

- ❖ ***OSH Law (2015) regulates*** handling technical incidents seriously endangering occupational safety and health and provide emergency rescue as follows:
 - Employers must have plans to handle technical incidents seriously endangering occupational safety and health and provide emergency rescue, and periodically organize drills in accordance with law; provide technical and medical facilities to ensure prompt

rescue and first aid when technical incidents occur, seriously endangering occupational safety and health and causing occupational accidents.

- Responsibilities for handling technical incidents seriously endangering occupational safety and health and providing emergency rescue:

a/ Employers shall immediately order the immediate stoppage of the operation of the machinery and equipment, the use of supplies and substances and working activities at the workplace which are likely to cause occupational accidents or technical incidents seriously endangering occupational safety and health; and may not force employees to continue their work or to return to their workplace if the risks of occupational accidents which seriously threaten their life or health have not been addressed; implement remedial and other measures according to the plan for handling of technical incidents seriously endangering occupational safety and health, provide emergency rescue to save people and property, ensure occupational safety and health for employees and people around the workplace, property and the environment; and promptly notify the local administration of the place where the incident or emergency rescue takes place;

b/ Upon the occurrence of a technical incident seriously endangering occupational safety and health, the employer of the production and business establishment or the locality where the incident occurs shall urgently mobilize manpower, materials and facilities to promptly respond to the incident in accordance with specialized laws;

c/ Upon the occurrence of a technical incident seriously endangering occupational safety and health which is related to various production and business establishments or localities, the employers of the establishments or the localities where the incident occurs shall respond to the incident and report it to the immediate superior agency in accordance with specialized laws. If the incident is beyond the responding capacity of the production and business establishments or localities, it shall be urgently reported to the immediate superior agency for promptly mobilization of other production and business establishments and localities to respond to it; the mobilized production and business establishments and localities shall implement and coordinate in implementing emergency rescue measures within their capacity.

- Gov. Decree NO. 39/2016/ND-CP, Article 8 prescribed the *Measures to handle technical incidents causing serious OSH problems and provide emergency response*

1. A plan for handling technical incidents causing serious OSH problems, should contain the following contents:

- a) Forces involved in on-site troubleshooting and duties of each participating member; support forces from nearby production and business establishments;
 - b) Technical means must be available in accordance with specialized laws; Necessary measuring equipment used in the incident handling process (these equipment must be inspected and calibrated according to the current regulations of the law on measurement);
 - c) How and sequence of troubleshooting.
2. Approve or send to the competent agency for approval and periodically organize a rehearsal of the plan for handling technical incidents causing serious OSH failure in accordance with the specialized law.
 3. Promptly notify the local authorities of the occurrence of technical incidents causing serious OSH failure.

❖ **The Circular No. 19/2016/TT-BYT** dated 30 June 2016 by MOH: Guideline on management of workers' health, provides the guideline on number of first-aid and emergency staffs at enterprises

➤ Requirements for first aid and emergency operations

1. The arrangement of the first-aid and emergency team, equipment, facilities, supplies must be based on the following factors:
 - a) Type of production and nature of the dangerous or harmful factor;
 - b) Number of employees, number of working shifts; arrangement of work shift;
 - c) Risk of accidents may occur at the workplace;
 - d) Distance from workplace to nearest medical facility;
 - dd) Rate of occupational accident (if any).
2. For the worksite using toxic chemicals or corrosive substances, there must be an emergency shower and eye-washing means at an easily accessible location in the work area and maintained in accordance with regulations of manufacturer or legal regulations (if any).
3. For workplace using chemicals that have been classified as dangerous chemicals according to the provisions of the chemical law, they must have chemical safety sheets in Vietnamese, clearly stating the instructions on first aid. first aid for that chemical, placed near the location of the first aid kit, first aid for easy access. If a chemical is used with an antidote, it must have an antidote available and Vietnamese instructions for use in first aid and emergency bags.

4. Having first-aid and emergency staff meeting the conditions specified in Article 7 of this Circular.

5. Publicly announcing information about the location, quantity of first aid kit, equipment, means of emergency, first-aid or emergency room or area and the list of first-aid and emergency staff members rescue at the working areas of the labor establishment to let employees know and use when necessary.

6. First aid and emergency aid equipment and means (including first aid kit) and the number of first and emergency aid workers must be periodically checked and reviewed to ensure they are always in use. use well and in accordance with the requirements specified in this Circular.

Organization of the first-aid and emergency team

1. The first-aid and emergency aid team includes:

a) The employee is assigned by the employer to join the first aid force. The assignment of employees to join the first aid force must meet the following criteria:

- Being healthy enough and volunteering to participate in first aid and emergency care activities;

- Be able to be present at the earliest location of an occupational accident to provide first aid and emergency aid during the working time;

- To be trained in first aid and first aid as regulates in this Circular.

b) The person performing the medical activities at the production and business establishment.

2. For production and business establishments whose jobs are on the list of jobs with strict requirements on occupational safety and sanitation, the employers shall arrange and assign the number of employees to work as employees. First aid and emergency work is as follows:

a) Less than 100 employees must arrange at least 01 employee to do the work of first aid and emergency care;

b) For every 100 additional employees, at least 01 additional employee must be assigned to perform the work of first aid and emergency care.

3. For other production and business establishments, the employer shall arrange and assign the number of employees to perform the first aid and first aid work as follows:

a) Less than 200 employees must arrange at least 01 employee to do the work of first aid and emergency care;

b) For every 150 additional workers, at least 01 additional employee must be arranged to do the work of first aid and emergency.

4. To ensure that each work shift or working group must have a person or force responsible for first aid and first aid.

Requirements for the first aid and emergency care area:

1. In cases where more than 300 people work together on the same ground, there must be a first-aid and emergency-aid area.
2. The first aid and emergency care area must meet the following minimum requirements:
 - a) Must be large enough to place an ambulance and have room for the injured person to lie down and be ventilated, illuminated and with a sign (cross);
 - b) Located near toilets, easy to access to the working and production areas and easy in the first aid, first aid or transportation of workers in case of occupational accidents;
 - c) The list of equipment for first aid and emergency care facilities is specified in Appendix 5 to this Circular.

Regulations on first aid bag at workplace: Provisions on first aid bags:

- First aid bags must be placed in the workers' working areas, in visible and easy-to-reach places with a cross symbol.
- The contents and quantity of first aid bags comply with as follows:

1. General requirements:

- The number of first aid bags equipped with the number of employees is consistent with the provisions of Section 2;
- For each working ground or floor or mobile part, at least 01 suitable first aid kit must be arranged;
- First aid bags at the workplace must have the minimum number of necessary equipment and tools for first aid as prescribed in section 3. Do not use them to store other items;
- Check regularly to ensure the full number and contents of first aid bags as prescribed.

2. Set the number of bags for the work area as follows:

No.	Work area size	Number and type of first aid bags
1	≤ 25 employees	Having at least 01 first aid bag type A
2	From 26 - 50 employees	Having at least 01 first aid bag type B
3	From 51 - 150 employees	Having at least 01 first aid bag type C

** Note: 01 bag B is equivalent to 02 bags A and 01 bag C is equivalent to 02 bags B.*

No.	Minimum requirement of equipment	Type A	Type B	Type C
1	Adhesive tape (roll)	02	02	04
2	Tape size 5 x 200 cm (roll)	02	04	06
3	Tape size 10 x 200 cm (roll)	02	04	06
4	Tape size 15 x 200 cm (roll)	01	02	04
5	Triangular tape (piece)	04	04	06
6	Elastic bandages	04	04	06
7	Absorbent gauze (10 pieces / pack)	01	02	04
8	Absorbent cotton (pack)	05	07	10
9	Rubber Garo Size 6 x 100 cm (piece)	02	02	04
10	Rubber Garo Size 4 x 100 cm (piece)	02	02	04
11	Scissors cut the tape	01	01	01
12	The straight bolt is 16 - 18 cm in size	02	02	02
13	The rim is not curved, measuring 16-18 cm	02	02	02
14	Examination gloves (pair)	05	10	20
15	Suitable respirator	01	01	02
16	NaCl 9 ‰ physiological saline (500ml bottle)	01	03	06
17	Antiseptic solution (vial):			
	- Alcohol 70 °	01	01	02
	- Betadine solution	01	01	02
18	Safety tape needles (sizes)	10	20	30
19	Waterproof plastic liner	02	04	06
20	First aid regimen	01	01	01
21	Eye protection	02	04	06
22	Equipment catalog registration slip in pocket	01	01	01

23	Neck brace (piece)	01	01	02
24	Arm brace (set)	01	01	01
25	Forearm braces (set)	01	01	01
26	Thigh brace (set)	01	01	02
27	Leg braces (set)	01	01	02

(* Note: Items from 24 to 27: store in the same place as the first aid bag.

EQUIPMENT LIST OF FIRST AND EMERGENCY AREAS:

1. First aid kit at work
2. The hand sink has enough clean water
3. Hand wipes
4. Nylon apron
5. Record keeping cabinet
6. Flashlight
7. Fabric, canvas clean
8. Thermocouple
9. Bed, pillow, blanket
10. Hard stretcher
11. Hand soap
- 12 Containers of hazardous and non-hazardous waste
13. Potty or potty holds the patient's waste
14. Waiting chair
15. Consumables cabinet and first and emergency aid tools and facilities

3.8.1.9. Legal requirements for Medical assessment/expertise for cases of occupational diseases and occupational accidents and injuries

Assessment of the level of working capacity decrease (OSH Law, Article 47):

1. Victims of occupational accidents or diseases shall be assessed or reassessed to determine the level of their working capacity decrease in one of the following cases:
 - a/ After receiving treatment for injuries or illnesses for the first time, their health conditions have become stable but such injuries or illnesses still effect their health;
 - b/ After receiving treatment for recurring injuries or diseases and their health conditions have become stable;

c/ In case of getting an injury or occupational disease which cannot be stably treated as prescribed by the Minister of Health, employees can seek medical assessment before or during the treatment process.

2. Employees may take thorough assessment to determine the level of their working capacity decrease in one of the following cases:

a/ Getting both an occupational accident and an occupational disease;

b/ Getting occupational accidents repeatedly;

c/ Getting many occupational diseases.

3. Employees specified at Point b, Clause 1 of this Article are entitled to re-assessment of occupational accidents and diseases past 24 months after the Medical Assessment Council makes conclusions on the level of their work capacity decrease; in case employees get an occupational disease that reduces their health rapidly, the medical assessment may be conducted earlier in accordance with regulations of the Minister of Health.

3.8.1.10. Legal requirements for Convalescence and health rehabilitation after medical treatment of injuries and diseases

1. After completing treatment for injuries caused by occupational accidents or illnesses caused by occupational diseases, within the first 30 days after returning to work, employees whose health has not yet recovered are entitled to convalescence and health rehabilitation for between 5 days and 10 days for each time getting an occupational accident or disease.

In case an employee does not receive conclusions on the level of working capacity decrease from the Medical Assessment Council within the first 30 days after returning to work, he/she is still entitled to convalescence and health rehabilitation applicable to employees after treatment of injuries or diseases if the Medical Assessment Council concludes the employee has his/her working capacity decreased to a level eligible for the occupational accident or disease regime.

2. The specific number of days for convalescence and health rehabilitation shall be decided by the employer and the establishment's trade union executive committee, or by the employer in case the establishment has no trade union. The maximum duration for convalescence and health rehabilitation is prescribed as follows:

a/ Ten days, for victims of occupational accidents or diseases whose working capacity is decreased by at least 51%;

b/ Seven days, for victims of occupational accidents or diseases whose working capacity is decreased by between 31% and 50%;

c/ Five days, for victims of occupational accidents or diseases whose working capacity is decreased by between 15% and 30%.

3. Employees prescribed in Clause 1 above are entitled to a daily allowance equaling 30% of the basic salary.

3.8.1.11. Legal requirements for management of workers' health records

❖ *Statistics and Reporting on occupational accidents and technical incidents seriously endangering occupational safety and health is prescribed in Article 36 of OSH Law (2015) as follows:*

1. Employers shall biannually and annually compile statistics and report on occupational accidents and technical incidents seriously endangering occupational safety and health occurring within their establishments to provincial-level labor state management agencies, unless otherwise prescribed by specialized laws.

2. Commune-level People's Committees shall biannually and annually compile statistics and report on occupational accidents and technical incidents seriously endangering occupational safety and health related to employees without labor contract to district-level People's Committees for summarization and reporting to provincial-level labor state management agencies.

3. Provincial-level labor state management agencies shall report on occupational accidents and technical incidents seriously endangering occupational safety and health which have been reported to the Ministry of Labor, War Invalids and Social Affairs, specifically:

a/ Making immediate reports on fatal occupational accidents and technical incidents seriously endangering occupational safety and health occurring in the localities;

b/ Making biannual and annual reports on occupational accidents, technical incidents seriously endangering occupational safety and health, and occupational safety activities in the localities.

4. Biannually and annually, the Ministry of Health shall compile statistics on occupational accident victims receiving medical examination and treatment at health establishments and send reports to the Ministry of Labor, War Invalids and Social Affairs for summarization.

5. The Ministry of Labor, War Invalids and Social Affairs shall organize and guide the collection, storage, summarization, provision, publicization and assessment of data on

occupational accidents and technical incidents seriously endangering occupational safety and health; and organize the building and management of a national database on occupational safety.

❖ *Statistics and reporting on occupational diseases is prescribed in Article 37 of OSH Law (2015) as follows:*

1. All cases of occupational diseases shall be counted and reported under regulations of the Minister of Health.
2. Employers shall submit annual reports and statistics on the prevention and control of occupational diseases to provincial-level health state management agencies for summarization and reporting to the Ministry of Health.
3. The Ministry of Health shall send annual reports and statistics on assessment of data on occupational diseases and prevention and control of occupational diseases to the Ministry of Labor, War Invalid and Social Affairs for summarization and reporting to the Government.
4. The Ministry of Health shall organize and guide the collection, storage, summarization, provision, publicization and assessment of data on occupational diseases; organize the building and management of a database on prevention and control of occupational diseases; and organize the investigation of occupational diseases.

➤ Circular No. 19/2016/TT-BYT by MOH regulates management of occupational health records as follows:

- Employers shall compile and manage occupational health records of employees, health records of victims of occupational diseases; inform employees of results of health check-up and medical examination for detection of occupational diseases; and annually report on the management of their employees' health to competent health state management agencies.
- An employee's health management dossier includes:
 1. Employee's personal health records include:
 - a) A health certificate or a pre-employment health checkup certificate in case the employee is exposed to harmful factors that cause occupational disease; the employee does heavy or hazardous occupations or jobs. dangerous and extremely heavy, toxic or dangerous according to current law provisions;
 - b) Periodical health checkbook or Occupational disease detection health checkbook in case the employee is exposed to harmful factors causing occupational disease, the

- employee does heavy or hazardous occupations or jobs. dangerous and extremely heavy, toxic or dangerous according to current law provisions;
 - c) The employee's record of occupational disease (if any);
 - d) Certificate of discharge, sick leave or other relevant treatment papers (if any)
2. Health and illness management profile of all employees working at the workplace is followed by the form specified in Appendix 2 issued with the Circular No. 19/2016/TT-BYT dated 30 June 2016 by MOH: Guideline on management of workers' health.
- Management of occupational accident emergency records
 - All cases of work accidents or poisoning at the workplace must be compiled with the occupational accident emergency dossier.
 - The occupational accident emergency dossier is made according to the form provided in Appendix 3 to the Circular No. 19/2016/TT-BYT dated 30 June 2016 by MOH: Guideline on management of workers' health and must be kept at labor establishments according to current law provisions.

3.8.1.12. Legal requirements for providing adequate personal protective equipment for employees performing jobs with dangerous factors and hazardous factors; to have occupational safety and health equipment at the workplace

- Employees exposed to dangerous factors and hazardous factors at work shall be provided by their employers with adequate personal protective equipment and shall use them during the working process.
- Employers shall implement technological and technical measures and procure equipment to exclude or minimize dangerous factors and hazardous factors and improve working conditions.
- When providing personal protective equipment, employers shall abide by the following principles:
 - a/ Ensuring proper types of personal protective equipment for eligible employees, adequate quantity and proper quality according to national standards and technical regulations;
 - b/ Not providing money instead of personal protective equipment; neither requiring employees to buy personal protective equipment by themselves nor collecting money from them to buy personal protective equipment;
 - c/ Instructing and monitoring employees in using personal protective equipment;

d/ Organizing the implementation of detoxification, disinfection and radioactive decontamination to ensure hygiene for personal protective equipment which has been used in areas at risk of intoxication, infection and radioactive contamination.

3.8.1.13. Legal requirements for training on OSH at workplace

According to Gov. Decree No. 44/2016/ND-CP dated 16 June 2016, Legal requirements for training on OSH at workplace and Gov. Decree No. 140/2018/ND-CP as follows:

❖ **Subjects for OSH training:** 6 following groups should be trained on OSH:

1. Group 1: Heads of units, production and business establishments, and affiliated departments, branches; in charge of production, sales and engineering; workshop manager or equivalent;

The deputy head of the head as prescribed in this Clause is tasked with the task of OSH.

2. Group 2: Persons performing the work of OSH include: Full-time and part-time OSH officers of the establishment; the person directly supervising OSH at the workplace.

3. Group 3: Employees doing work with strict OSH requirements are those who do work on the list of jobs with strict OSH requirements set by the Ministry of Labor, Invalids, and Social Affairs.

4. Group 4: The employees who do not belong to groups 1, 3, 5, 6 specified in this Clause, including also apprentices, interns, and probationers to work for employers.

5. Group 5: Health workers.

6. Group 6: OSH workers in OSH network accordance with Article 74 of the Law on occupational safety and sanitation. ”

❖ **Contents of training in OSH**

1. Group 1:

a) System of policies and laws on OSH

b) OSH operations include: Organizing the apparatus, management and implementation of regulations on OSH at the facility; assignment of responsibility and assignment of powers to OSH; basic knowledge about dangerous and harmful factors, measures to prevent and improve working conditions; safety culture in production and business.

2. Group 2:

a) System of policies and laws on OSH;

b) OSH operations: Organize the apparatus, manage and comply with regulations on OSH at the facility; building internal rules, regulations, processes and measures to ensure OSH;

assignment of responsibilities and assigning powers to OSH; safety culture in production and business; basic knowledge about dangerous and harmful factors, measures to prevent and improve working conditions; elaborate and urge the implementation of annual OSH plans; analysis, risk assessment and development of emergency response plans; building a management system for occupational safety and sanitation; professional self-inspection; investigation of occupational accident; requirements of the work environment inspection, training and monitoring; manage machinery, equipment, materials and substances with strict requirements on OSH; information, propagation and training activities on OSH; first-aid for occupational accidents and prevention of occupational diseases for employees; emulation, commendation, discipline, statistics, reporting on occupational safety and health;

c) Contents of specialized training: General knowledge of machinery, equipment, materials and substances generating dangerous and harmful factors; a safe working process with machinery, equipment, materials and substances with strict requirements on OSH.

3. Group 3

a) System of policies and laws on OSH;

b) Basic knowledge about OSH: policies and regimes on OSH for employees; basic knowledge about dangerous and harmful factors at work and methods to improve working conditions; functions and duties of the workers in OSH network; safety culture in production and business; rules of OSH, signs, signboards indicating OSH and using safety equipment, personal protective equipment; professional skills and skills in first aid to occupational accidents and prevention of occupational diseases;

c) Content of specialized training: General knowledge of machinery, equipment, materials, substances generating dangerous and harmful factors and methods of analysis, assessment and management of risks related to public having strict requirements on OSH that the trained person is doing; safe and hygienic working process; OSH techniques related to the employees' work.

4. Group 4:

a) Basic knowledge about OSH: Rights and obligations of employers and employees; policies and regimes on OSH for employees; basic knowledge about dangerous and harmful factors at work and methods to improve working conditions; functions and duties of the workers in OSH network; safety culture in production and business; OSH rules, signboards, instruction boards for OSH and use of safety equipment, personal and professional protection equipment, first aid skills for occupational accidents , prevention of occupational diseases.

b) Direct training at the workplace: Working process and specific requirements on OSH at the workplace.

5. Group 5:

a) System of policies and laws on OSH

b) OSH operations include: Organizing the apparatus, management and implementation of regulations on OSH at the facility; assignment of responsibilities and assigning powers to OSH; basic knowledge about dangerous and harmful factors, measures to prevent and improve working conditions; safety culture in production and business;

c) Training for issue of Certificate of professional occupational health: Harmful factors at workplace; monitoring the working environment to assess the harmful factors; make records of occupational hygiene at the workplace; common occupational diseases and prevention measures; how to organize occupational disease examination, job placement examination, and prepare dossiers of occupational disease assessment; organization and skills of first aid and first aid; disease prevention at work; food safety; procedures for taking and storing food samples; organizing the implementation of in-kind and nutritional fostering for employees; improve workplace health, prevent non-communicable diseases at work; knowledge, skills, methods to develop plans, plans, equipment and necessary conditions for the implementation of occupational hygiene; methods of communication and education about occupational hygiene and occupational disease prevention; establishing and managing information on occupational hygiene and occupational diseases at the workplace; make and manage employee health records, health records of people with occupational diseases. Coordination with OSH officers or the division in charge of occupational safety and health to perform related tasks in accordance with regulations.

6. Group 6:

Employees participating in the OSH network, in addition to the contents of OSH training according to regulations, are also provided with additional training in skills and operating methods of OSH workers.

❖ **Training period:** The minimum initial training time is specified as follows:

1. Group 1, Group 4: Total training time is at least 16 hours, including testing time.
2. Group 2: Total training time is at least 48 hours, including training time in theory, practice and test.
3. Group 3: Total training time is at least 24 hours, including testing time.

4. Group 5: Total training time is at least 56 hours, including testing time. In which, the training time for issue of certificates of occupational health expertise is at least 40 hours, the training content for issuing certificates of OSH is at least 16 hours.

5. Group 6: The total training time is at least 4 hours apart from the content trained in OSH.

❖ **Training, retraining, updating knowledge and skills on and periodic training on OSH**

1. Training and updating knowledge and skills on OSH as follows:

At least every 2 years from the effective date of the training certificate or safety card, the trained person must attend the training course to review the trained knowledge and update the new knowledge on OSH. The training time is at least equal to 50% of the first training time.

2. Periodic training: Employees of group 4 are trained periodically at least once a year to review the trained knowledge and update new knowledge and skills on OSH. The periodic training time is equal to 50% of the first training time.

3. Training when there is a change in the job; changes in equipment, technology and training after hours off work

a) Changing jobs or changing equipment and technology: Before assigning jobs, they must be trained in OSH in accordance with the new job or new equipment and technology.

In case the subject has been trained for less than 12 months since moving to a new job or since there is a change of equipment or technology, the retrained content is exempt from the trained part.

b) Returning to work after the time off work: If the establishment stops working or the employee is off work for 06 months or more, before returning to work, the employee is re-trained with the same contents as the first training. The retraining time is equal to 50% of the first training time.

❖ **The time limit for issuance and new issuance of training certificate, safety card as follows:**

1. The training certificate, the safety card is valid for 2 years. The certificate of professional occupational health is valid for 5 years.

2. Within 30 days, prior to the expiration of the training certificate or safety card, the employer shall make a list of the persons issued with the training results or documents proving the knowledge update, OSH skills send to training organizations or enterprises to train themselves. If the training results are satisfactory, a new training certificate or safety card will be issued according to the provisions of this Decree. "

3.8.1.14. Legal requirements for training on first aid at workplace

According to the Circular No. 19/2016/TT-BYT dated 30 June 2016 by MOH: Guideline on management of workers' health , Legal requirements for first aid training at workplace as follows:

❖ Subjects trained in first aid and emergency aid include:

- a) Employees, unless they have the Certificate of training in occupational safety and health;
- b) Persons assigned to join the first aid and emergency aid team.

❖ The first time of first aid training:

Duration of training:

- For employees: 4 hours
- For the first aid and emergency rescue team: 16 hours (2 days)

Training content:

1. The basic principles of first aid on site
2. Dressing the wound (Principles, means of equipment used for dressing, dressing technique)
3. Technique of temporary hemostasis (Principle of hemostasis, measures to stop bleeding temporarily)
4. Techniques of fixing a temporary fracture (Principles of fixing fractures, means of fixing fractures)
5. Cardiopulmonary resuscitation technique (Recognize signs of stopping respiratory circulation, guide airway ventilation and support breathing, guide cardiopulmonary resuscitation)
6. Handling burns; (Assess the cause and severity of burns, and treat burn first aid)
7. The method of transporting the victim safely without a stretcher and has a stretcher for first aid
8. Types of emergency:
 - Emergency electric shock
 - First aid for drowning
 - Emergency for chemical accident
9. General guidance on contents and use of first aid bags
10. General practice for the content

❖ Retraining every year

The training content shall comply with the provisions of the first time training for the following time:

- For employees: 2 hours;
- For the first aid and emergency rescue team: 8 hours (1 day).

3.8.1.15. *Legal requirements for Management of machinery, equipment, supplies and Substances subject to strict requirements for OSH:*

Accreditation of machinery, equipment and supplies subject to strict requirements for occupational safety

1. Machinery, equipment and supplies subject to strict requirements for occupational safety shall be accredited before being used and periodically during the use by occupational safety inspection organizations.
2. The accreditation of machinery, equipment and supplies subject to strict requirements for occupational safety must be accurate, open and transparent.
3. The Government shall prescribe in detail agencies competent to grant, conditions on physical and technical foundations, the order, procedures and dossiers for granting, re-granting, extending or revoking certificates of eligibility to occupational safety accreditation organizations; criteria for accreditors to meet accreditation requirements of inspected objects;

3.8.2. *Mechanisms to prevent industrial disaster protect environment and promote public safety*

➤ **Article 109 of Vietnam Environmental Protection (2014) regulates Environmental emergency response as follows:**

1. Responsibility for environmental emergency response
 - a) Any entity that causes an environmental emergency shall take emergency measures to ensure safety of people and property; rescue people and property, then notify the local government or a local agency specialized in environmental protection;
 - b) The head of the establishment and administrative division where the environmental emergency occurs shall promptly mobilize forces, equipment and vehicles to emergency response;

c) If an environmental emergency occurs to many establishments or administrative divisions, the heads of such establishments and administrative divisions shall cooperate with each other in emergency response;

d) If the situation is beyond the capability of them, the heads shall request the superior agency to mobilize forces from other establishments or administrative divisions to environmental emergency response; the requested establishments or administrative divisions shall implement the emergency response measures within their competence.

2. Response to particularly serious environmental emergencies shall be carried out in accordance with regulations of law on state of emergencies.

3. Manpower, supplies, and vehicles for environmental emergency response shall be reimbursed in accordance with law.

4. This Law and relevant regulations of law shall apply to responsibility for paying compensation for environmental emergencies.

❖ **Article 110 of Vietnam Environmental Protection (2014) prescribed Developing environmental emergency response forces**

1. Manufacturing and business establishments shall improve their ability to prevent and respond to environmental emergencies.

2. The State shall develop environmental emergency response forces and environmental emergency warning system.

3. Investment in emergency response services is encouraged.

❖ **Article 111 of Vietnam Environmental Protection (2014) regulate the Determination of damage caused by environmental emergencies**

1. The investigation into damage caused by an environmental emergency shall deal with:

a) Determine the boundary of the area polluted because of the environmental emergency;

b) Pollution levels;

c) Causes and accountability or relevant parties;

d) Measures for pollution reduction and environmental remediation;

dd) Damage to the environment as the basis for claiming compensation.

2. Responsibility for investigation into damage caused by environmental emergencies:

a) The People's Committee of the province shall carry out investigation into damage caused by local environmental emergencies;

b) The Ministry of Natural Resources and Environment shall instruct the People's Committees of provinces to determine the scale of pollution and damage caused by interprovincial environmental emergencies.

3. Investigation results must be announced.

❖ **Article 112 of Vietnam Environmental Protection (2014) regulate the Responsibility for environmental remediation**

1. Any entity that causes an environmental emergency is obliged to:

a) Comply with the requests of environment authorities during the investigations to determine the pollution scale, levels, and remedial measures.

b) Immediately take measures to prevent the pollution sources, stop the pollution from spreading and affecting local people's health;

c) Take measures for pollution reduction environmental remediation at the request of environment authorities.

d) Pay damages in accordance with this Law and relevant regulations;

dd) Submit reports on environmental emergency response and environmental remediation to environment authorities.

2. If the environmental emergency is caused by multiple entities and they fail to reach an agreement on responsibility, the environment authority shall cooperate with relevant entities to attribute responsibility for pollution reduction and environmental remediation of each entity.

3. If the environmental emergency is caused by a natural disaster or an unknown cause, competent authorities shall mobilize forces to carry out pollution reduction and environmental remediation.

4. If an environmental emergency occurs in multiple provinces, the Prime Minister shall direct the pollution reduction and environmental remediation.

❖ **The Circular No. 35/2015/TT-BTNMT** dated June 30, 2015, providing for the environmental protection of economic zones, industrial parks, export processing zones and hi- tech parks

➤ **Article 12 regulates Prevention, response to and remediation of environmental incidents/disasters in industrial parks:**

1. An industrial park's program on environmental management and supervision must include a plan on prevention, response to and remediation of environmental incidents with the following major contents:

a/ Identification and assessment of dangers of environmental incidents that may occur during the operation of the industrial park, circumstances for each type of dangers of environmental incidents that are likely to occur;

b/ Preventive measures for each environmental incident; measures to eliminate causes of environmental incidents;

c/ A plan on arrangement of on-the-spot forces to be ready to respond to and remedy each specific environmental incident circumstance; plan on training and drilling in the prevention, response to and remediation of environmental incidents;

d/ Installation and inspection of necessary equipment, tools and facilities for responding to environmental incidents;

dd/ Implementation mechanism, notification and alert methods and mobilization of manpower and equipment and facilities in and outside the industrial park to cope with environmental incidents of different levels; mechanism for coordination among related organizations and individuals in the area in responding to environmental incidents;

e/ Solutions to addressing environmental pollution when an environmental incident occurs;

g/ A plan to mobilize financial sources for the implementation of the plan on prevention, response to and remediation of environmental incidents.

2. Owners of industrial park infrastructure construction and commercial operation projects shall make and implement plans on prevention, response to and remediation of environmental incidents according to Clause 1 of this Article.

➤ **Article 14. Responsibilities of an economic zone or industrial park management board**

1. To establish a specialized section to organize the environmental protection of the economic zone or industrial park in accordance with law. The head of this section must satisfy the following conditions:

a/ Possessing a university or higher degree in environmental management; environmental science, technology and techniques; chemistry or biology;

b/ Having at least three (3) years' experience in environmental work.

2. To draft a coordination regulation for environmental protection of the economic zone or industrial park between the economic zone or industrial park management board and the provincial-level Department of Natural Resources and Environment and the People's Committee of the district, provincial city or town, and submit it to the People's Committee of the province or centrally run city (below referred to as provincial-level People's Committee) for approval.

3. To guide and inspect the owner of the construction and commercial operation of industrial park infrastructure project and production, business and service establishments operating in the economic zone or industrial park under its management in implementing environmental protection regulations; to detect and promptly report violations of the environmental protection law to competent state management agencies for settlement and handling; to mobilize forces to respond to and remedy environmental incidents occurring in the economic zone or industrial park.
4. To make a regular report on environmental protection of the economic zone or industrial park and send it to the provincial-level People's Committee and the Ministry of Natural Resources and Environment before January 15 every year. The report form is provided in Appendix 5 to this Circular.
5. To publicize information on environmental protection of the economic zone or industrial park; to educate about and disseminate legal documents on environmental protection to the owner of the industrial park infrastructure construction and commercial operation project and production, business and service establishments operating in the economic zone or industrial park.
6. To coordinate with functional agencies in settling environmental disputes among production, business and service establishments operating in the economic zone or industrial park or organizations and individuals outside the economic zone or industrial park.
7. To jointly examine, inspect, and handle violations of environmental protection committed by the owner of the industrial park infrastructure construction and commercial operation project and production, business and service establishments operating in the economic zone or industrial park.
8. To implement environment management and protection in other economic zones and industrial parks under their assigned or authorized functions and tasks.

3.9. Education and Supply for Personnel engaged in the area of OSH

3.9.1. Educational system and contents for personnel engaged in the area of OSH

The personnel engaged in the area of OSH have different backgrounds, multi-disciplinary backgrounds that include medical doctors (MDs) (e.g. general, specialized MDs; MDs of Epidemiology and Preventive Medicine); doctor assistants; nurses; pharmacists; engineers (e.g. environment engineers, engineers of labor protection/occupational safety, chemical, physical engineers, etc.); bachelor/MPH/PhD. of public health, biologists, psychologist, bio-chemists, hematologist, multi-discipline technicians, etc.

So, the educational system for OSH personnel is included in almost education system in Vietnam consisting of the system of universities and schools of intermediate level with graduate and post-graduate training programs (MSc. and Ph.D). This system consists of both state and private ones.

The educational system for OSH personnel includes:

- (1) Institutions of the preventive medicine system;
- (2) Universities/Schools of medicine and pharmacy,
- (3) Universities/Schools of the environment
- (4) Universities/Schools of Social and Humanities
- (5) Universities/Schools of occupational safety and labor protection
- (6) Schools of intermediate level and Colleges

Institutions of the preventive medicine system: There are 4 institutes under the management of the Ministry of Health that are responsible for research, training, coordination, international cooperation, and service provision in OH, including the National Institute of Occupational and Environmental Health (NIOEH), the Institute of Public Health (Ho Chi Minh City), the Tay Nguyen Institute of Hygiene and Epidemiology, the Nha Trang Pasteur Institute and the Institute of Marine Medicine.

Universities/Schools of medicine and pharmacy, public health:

- Graduate training: medical doctors, pharmacists, nurses, doctor assistants, medical doctors specialized in epidemiology, preventive medicine, bachelor of public health, and technicians, etc.
- Postgraduate training: MSc. and PhD in preventive medicine; MPH, PhD. in public health; PhD. in occupational health (some university and Institutions), Specialized MD degree I and II,

Universities/Schools of the environmental sciences and technology: provides trainings for engineers/bachelor/master/Ph.D. in the environment, environmental technology, monitoring, and testing,...

National Universities and University of Social and Humanities: train chemical, physical engineers, biologists, psychologist, etc.

Universities/Schools of occupational safety and labor protection: provides occupational safety engineers, bachelor of labor protection.

Schools of intermediate levels: train multi-disciplinary technicians, doctor assistants and nurses at intermediate levels, etc.

There is no any university of medicine and pharmacy that train physicians/doctors specialized in occupational health. To become occupational health physicians/doctors, it should be fulfilled the followings conditions:

- Being medical doctors (general, specialized MDs, MDs of Epidemiology)
- Working experience at least 3 years in clinics
- Having certificate of occupational disease (see Item 3.7.1 for more details of training program: attending the training course on occupational disease for 3 months in the National Institute of Occupational Health or 9 months in Institute of Preventive Medicine training and Public Health of Hanoi Medical University. However, from 2020, there is no more the 9 months course)

For training PhD. in occupational health, the training institutions are the National Institute of Occupational Health (NIOEH), the National Institute of Epidemiology and Hygiene (before 2015), Army Academics (before 2015). Subjects for PhD.training are with background of general and specialized MDs, except MD specialized in preventive medicine, MSc. in preventive medicine, Specialized MD degree I and II.

For occupational hygienists, there is no any university that trains this specialization. If any OSH personnel want to be involved in the working environment monitoring, they need to attend the 1 month course of working environment monitoring (see Item 3.7.1 for more details of training program). The training institutions that are certified by MOLISA according to the requirements of training these personnel as stipulated in Gov. Decree No 140/2018/ND-CP dated 8 Oct. 2018 on amendment of some articles of OSH Law related to OSH training.

Regards occupational safety, there are two universities (Trade Union University in the North of Vietnam and Ton Duc Thang Univeristy in the South of Vietnam) that train Master and bachelor of labor protection/occupational safety. The training program related to labor protection/occupational safety for bachelor includes: Overview of Labor Protection, Factory power supply, Personal protective equipment, Occupational health, Ergonomics, Electrical safety, Chemical safety, Noise and vibration handling techniques, Industrial lighting engineering, Fire prevention, Safety techniques in construction, Regimes, policies and laws on labor protection, Occupational Safety and health Statistics and Analysis, Identify and evaluate the working environment risks, Solid waste treatment techniques, Treatment techniques of water pollution, Treatment techniques of air environmental pollution, Safety lifting equipment,

transportation, Safety engineering projects, occupational Hygiene engineering projects, Safety management in construction, Working environment risk management, Solid waste management, Water environmental pollution management, Air pollution management, Safety management of lifting and transporting equipment, Project of management of occupational safety and health at the workplace.

3.9.2. *List of universities and training institute*

List of universities and training institute in the area of OSH

No	Name	Educational contents for OHS/Training services
I. Institutions		
1.	The National Institute of Occupational and Environmental Health (NIOEH)	Ph.D training program on Occupational Health OHS training for group 1, 4, 5 and 6 Certificate training on working environment monitoring, occupational health for medical staff working in enterprises, occupational disease detection
2.	The Vietnam National Institute of Occupational Health and Safety (VNIOSH)	OSH training program for group 1,2,3,4 and 6
3.	Institute of Public Health in Ho Chi Minh City	Training for students in the Medical University in Ho Chi Minh City, technicians, and bachelors of Public Health; OSH training for group 1,4,5 &6 Certificate training on working environment monitoring, occupational health for medical staff working in enterprises
4.	Nha Trang Pasteur Institute	Training medical technicians OSH training for group 1,4,5 &6 Certificate training on working environment monitoring, occupational health for medical staff working in enterprises
5.	Tay Nguyen Institute of Hygiene and Epidemiology	OSH training for group 1,4,5 &6

6.	The Institute of Maritime Medicine;	Continuous training, retraining and certificate training on maritime Medicine, training on emergency and disaster recovery at sea, health care and health protection for workers and people at the sea and island;
II. Schools of medicine and pharmacy		
7.	Hanoi Medical University (HMU)	Bachelor/Master/Ph.D. in Public Health, Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians
8.	Ha Noi University of Public Health (HUPH)	Bachelor/Master/Ph.D. in Public Health Bachelor of medical and environment testing Medical Testing Technicians Environmental Technicians
9.	Thai Nguyen University of Medicine and Pharmacy (TNUMP)	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Pharmacist
10.	Hai Phong University of Medicine and Pharmacy (HPUMP)	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Pharmacist
11.	School of Medicine of Hanoi and Ho Chi Minh National University,	Bachelor/Master/Ph.D. in Public Health

		Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD.
12.	Nam Dinh University of Nursing (NDUN)	Nurses
13.	Thai Binh University of Medicine and Pharmacy	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Pharmacist
14.	Hue University of Medicine and Pharmacy (HUMP)	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Medical imaging technicians Pharmacist
15.	Tay Nguyen University (TNU)	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Pharmacist
16.	University of Medicine and Pharmacy at Ho Chi Minh City (HCMUMP)	Bachelor/Master/Ph.D. in Public Health Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD. Nurses Medical Testing Technicians Pharmacist

17.	Pham Ngoc Thach University of Medicine (UPNT)	<p>Bachelor/Master/Ph.D. in Public Health</p> <p>Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD.</p> <p>Nurses</p> <p>Medical Testing Technicians</p> <p>Medical imaging technicians</p> <p>Pharmacist</p>
18.	Can Tho University of Medicine and Pharmacy (CTUMP)	<p>Bachelor/Master/Ph.D. in Public Health</p> <p>Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD.</p> <p>Nurses</p> <p>Medical Testing Technicians</p> <p>Medical imaging technicians</p> <p>Pharmacist</p>
19.	Hai Duong Medical Technical University (HDMTU)	<p>Nurses</p> <p>Medical Testing Technicians</p> <p>Medical Imaging Technicians</p> <p>Rehabilitation Technicians</p>
20.	Vinh Medical University (VMU)	<p>Bachelor/Master/Ph.D. in Public Health</p> <p>Medical doctors, Doctors of Medicine Preventive, specialized MDs and specialized MDs degree I & II, PhD.</p> <p>Nurses</p> <p>Medical Testing Technicians</p>
21.	Da Nang University of Medical Technology and Pharmacy (DNUMTP)	<p>Medical doctors</p> <p>Nurses</p> <p>Pharmacist</p> <p>Medical Testing Technicians</p> <p>Medical Imaging Technicians</p> <p>Rehabilitation Technicians</p>
22.	Tra Vinh University (TVU)	<p>Nurses</p> <p>Doctors of Preventive Medicine</p>

		Medical Testing Technicians Medical Imaging Technicians Rehabilitation Technicians
23.	Vietnam University of Traditional Medicine	Medical Doctors Pharmacist
24.	Hanoi University of Pharmacy	Pharmacist
25.	Thang Long University	Bachelor/Master. in Public Health Nurses
26.	Dai Nam University	Medical Doctors Pharmacist Nurses
27.	Hoa Binh University	Pharmacist Nurses
28.	Hanoi University of Business and Technology	Medical Doctors Nurses Pharmacist
29.	Phenikka University	Pharmacists Nurses Medical Testing Technicians Biomedical Technicians
30.	Thanh Do University	Pharmacist
31.	Ton Duc Thang University	Pharmacist
32.	Nguyen Tat Thanh University	Medical Doctors Nurse Doctors of Preventive Medicine Pharmacist Medical Testing Technicians Biomedical Technicians
33.	Hong Bang International University	Medical Testing Technicians Nurse Pharmacist Medical doctors
34.	Van Lang University	Nurse

		Pharmacist Medical Testing Technicians
35.	Vietnam Tokyo University of Medicine	Nurse Medical Testing Technicians Medical Imaging Technicians Rehabilitation Technicians
36.	East Asia University of Technology	Nurse Pharmacist
37.	Thanh Dong University	Nurse Pharmacist
38.	Trung Vuong University	Nurse
39.	Buon Ma Thuot University	Medical doctors Nurses Pharmacist Public Health
40.	Duy Tan University	Medical doctors Pharmacist Nurses
41.	Dong-A University	Nurses Pharmacist
42.	Yersin University	Nurses Pharmacist
43.	Phan Chau Trinh University	Medical doctors Nurses Medical Testing Technicians
44.	Quang Trung University	Nurses Public Health
45.	Dong Nai University of Technology	Nurses Medical Testing Technicians
46.	Mien Dong University	Pharmacist
47.	Cuu Long University	Nurses Medical Testing Technicians Pharmacist
48.	Lac Hong University	Pharmacist

49.	Binh Duong Economics and Technology University	Pharmacist
50.	Nam Can Tho University	Medical doctors Pharmacist Medical Testing Technicians Medial Imaging Technicians
51.	Mien Dong International University	Nurses
52.	Tan Tao University	Medical doctors Nurses Medical Testing Technicians
53.	Tay Do University	Nurses Pharmacists
54.	Vo Truong Toan University	Medical doctors Pharmacists
55.	Vietnam Military Medical University	Medical doctors
III. Schools of environment		
56.	Hanoi University of Sciences	Bachelor/Master/PhD in Environmental Sciences/Technology/Monitoring
57.	Hanoi University of Science and Technology	Biomedical Technicians Pharmaceutical Chemistry technician Environmental Technician
58.	Hanoi University of Sciences and Technology	Pharmacist Environmental Technician/Bachelor Bachelor in Medical Science and Technology
59.	Hanoi University of Industry	Environmental Engineer
60.	Hanoi University of Mining and Geology	Environmental Technicians
61.	Hanoi University of Natural Resources and Environment	Environmental Technicians
62.	Ha Noi University of Public Health (HUPH)	Environmental Technicians
63.	Hanoi Metropolitan University	Environmental Technicians
64.	Thuy Loi University	Environmental Technicians
65.	Electric Power University	Environmental Technicians
66.	National University of Civil Engineering	Environmental Engineer

67.	Dong Do University	Environmental Engineer
68.	Hanoi University of Business and Technology	Environmental Engineer
69.	Nguyen Trai University	Environmental Engineer
70.	Vietnam National University of Agriculture	Bachelor in Environmental Science Environmental Engineer
71.	Hanoi architectural University	Environmental Engineer
72.	Ho Chi Minh University of Technology	Environmental Engineer
73.	Ho Chi Minh University of Sciences	Environmental Scientist Environmental Engineer
74.	Ho Chi Minh University of Food Industry	Environmental Engineer
75.	Nong Lam University	Environmental Scientist Environmental Engineer
76.	Sai Gon University	Environmental Scientist Environmental Engineer
77.	Ho Chi Minh University of Natural Resources and Environment	Environmental Scientist Environmental Engineer
78.	Ton Duc Thang University	Environmental Scientist Environmental Engineer
79.	Ho Chi Minh University of Technology	Environmental Engineer
80.	Van Lang University	Environmental Engineer
81.	Thai Nguyen University of Agriculture and Forestry	Environmental Scientist
82.	Thai Nguyen University of Sciences	Environmental Scientist
83.	Viet Tri University of Industry	Environmental Engineer
84.	Vietnam Maritime University	Environmental Engineer
85.	Hung Yen University of Technology and Education	Environmental Engineer
86.	Tan Trao University	Environmental Scientist
87.	Hai Phong University of Management and Technology	Environmental Engineer
88.	Vinh University	Environmental Scientist Environmental Engineer
89.	Ha Tinh University	Environmental Scientist
90.	Hue University of Sciences	Environmental Scientist Environmental Engineer

91.	Da Nang University of Sciences and Technology	Environmental Scientist Environmental Engineer
92.	Da Nang University of Technology and Education	Environmental Engineer
93.	Da Lat University	Environmental Sciences
94.	Nha Trang University	Environmental Engineer
95.	Tay Nguyen University	Environmental Engineer
96.	Duy Tan University	Environmental Engineer
97.	Yersin University	Environmental Engineer
98.	An Giang University	Environmental Engineer
99.	Can Tho University	Environmental Scientist Environmental Engineer
100.	Mien Tay University of Construction	Environmental Engineer
101.	Dong Nai University	Environmental Scientist
102.	Dong Thap University	Environmental Scientist
103.	Kien Giang University	Environmental Scientist Environmental Engineer
104.	Vinh Long University of Technology Education	Environmental Engineer
105.	Ba Ria Vung Tau University	Environmental Engineer
106.	Dong Nai University of Technology	Environmental Engineer
107.	Nam Can Tho University	Environmental Engineer
IV. National Universities and University of Social and Humanities		
108.	Hanoi National University	Bachelor/Master/PhD. in chemist, physics, biology, psychology, etc
109.	HoChiMinh national University	Bachelor/Master/PhD. in chemist, physics, biology, psychology, etc
110.	Academy of Social and Humanity Sciences	Bachelor/Master/PhD. in social and humanity sciences
V. Schools of labor protection/safety		
111.	Trade Union University	Bachelor in labor protection (Labor protection engineers)
112.	The University of Labour and Social Affair	Bachelor in Insurance
113.	Ton Duc Thang University	Bachelor in labor protection (Labor protection engineers)

VI. Schools of intermediate level and Medical College		
114.	Hanoi School Intermediate Medicine and Pharmacy	Intermediate level Pharmacists, dental technicians, Physician (General Practitioner), Traditional Medicine Physician
115.	HoChiMinh School Intermediate Medicine and Pharmacy	Intermediate level Pharmacists, dental technicians, Physician (General Practitioner), Traditional Medicine Physician
116.	Hanoi Medical College	Nurses, Midwives; College level Pharmacists, Medical testing technicians and Medical imaging technicians
117.	Hadong medical College	Nurses, Midwives; College level Pharmacists; Medical testing technicians and Medical imaging technicians Intermediate Physicians
118.	The Hanoi College of Technology and Commerce	Intermediate and college Pharmacists, Nurses, General College Physicians
119.	Pharmaceutical and Medical College at 63 provinces over the country	Intermediate and College Pharmacists, Nurses, dental technicians; Physiotherapy and rehabilitation technicians, Physician (General Practitioner), Traditional Medicine Physicians Midwives
120.	Dai Viet Saigon College	College Pharmacists, Nurses, Medical testing Technician sand Midwives;
121.	Bach Viet College	College Pharmacists and Nurses
122.	Ho Chi Minh City College of Economics and Technology	Traditional Medicine Physisicans
123.	Vien Dong College	Nurses
124.	Tue Tinh Medical College	General Physicians, Pharmacist, Traditional Medicine Physicians, Acupressure Massage technicians
125.	Etc.	

3.9.3. Supply and availability for personnel engaged in the area of OSH

There is no data of personnel working in OSH area over the country until now.

According to the results of NIOEH's investigation on actual situation on capacities and the needs for enhancing provision of basic occupational health service in 1590 preventive medicine facilities and labour inspection units at different levels over the country in 2009-2010, the total number of OH personnel was 4928. Most OH personnel had intermediate educations (55.3%), while those with university and postgraduate degrees accounted for more than 1/3 (38.5%) of the personnel. With respect to professional levels, doctor assistants accounted for the highest proportion (28.2%), followed by nurses (16.2%) and engineers/Bachelors (15.5%). Medical doctors (MDs) constituted only 13.6% and MDs specialized in epidemiology and preventive medicine accounted for only 1.2%.

Distribution by professional levels varied by organizational level: At the national level, MDs predominated (40%), followed by other disciplines (35.1%), with technicians accounting for almost 26%. At the provincial level, medical doctors accounted for 20.0-32.6% of the OH personnel, with especially high proportions (1/3 of the total staff) seen in the Centers for Occupational Health and Environment (COHEs) and the occupational health centers of the industrial branches/sectors. Bachelors/engineers in environment accounted for 20.6-22.1%, followed by technicians (13.5-20.3%). At the district level, doctor assistants constituted more than 1/3 of all personnel, technicians accounted for 27.5%, and medical doctors comprised only 3%. At the commune and enterprise levels, doctor assistants and nurses predominated (75 and 70%, respectively). In comparison with the national standards in personnel aspect, at provincial level, all investigated Provincial Preventive Medicine Centers (PPMCs) met only 64.2% of leadership standards and 60.7% of staff standards. 67.3% of PPMCs and 62.5% of COHEs had needs for supplementing personnel's. For PPMCs, personnel's should be supplemented as medical doctors, bachelors and technicians. For COHEs, they need OH practitioners and public health bachelors for work assignments of occupational health, biochemical and hematological testing, occupational disease examination and detection, etc. At District level, there is a needs of supplementing personnel's for OH tasks with medical doctors and technicians. At commune level, it needs of supplementing personnel as medical doctors and doctor assistants who would be responsible for primary health care and occupational health activities at communes. 39.2% of health units at enterprises need more personnel's as medical doctors and doctor assistants who would be responsible for occupational health activities at enterprises. 94% of OSH inspection at provincial level and 75% of Department of Work and Employment at district level has needs of supplementing personnel's as medical doctors and HSE engineers to undertake OSH inspection

(Nguyen Bich Diep et al (2012). *Need assessment for capacity building in provision of basic occupational health services in Vietnam. Journal of Practical Medicine No. 849-850, p.364-369*)

According to the annual OH report by VHEMA, MOH, in 2015, total number of OH staffs over the country was 1,796 people. These data were collected from 55 Provincial/City Centers of Preventive Medicine, 8 Centers for Protection of workers' Health and Environment and 13 Health/Occupational Health Centers at Industrial Branches/sectors. There were 285 medical doctors involved in OH activities, e.g. working environment monitoring, health care for workers, periodic health examination, OD detection and diagnosis, etc. So, in average there were 4 medical doctors per center working in OH area. The number of centers with more than 5 doctors was mainly concentrated in provinces with developed industries such as Hanoi, Ho Chi Minh City, Vinh Phuc, Dong Nai, Quang Ninh, Bac Ninh, etc. Many provinces had only a few doctors, even some provinces do not have any doctors in charge of occupational health. Meanwhile, work-related diseases evolved silently, so early detection depends a lot on the qualifications of doctors and the results of working environment monitoring, periodic health checkup, and occupational disease examination.

In 2015, there were 50 occupational disease clinics established at 55 Provincial/city Preventive Medicine Centers, 8 Centers for Occupational Health and Environmental Protection and 8 Health/Occupational Health Centers at Industrial Branches. It means that not every center has occupational disease clinic where can do OD detection, diagnosis and examination.

No.		55 Provinces	8 Industrial Branches /sectors	2015
1	Total No. of OH staffs	1.404	392	1796
2	Medical Doctors	182	103	285
	Pharmacists	19	9	28
	Engineers	62		
	University level	235	150	385
	Other levels	87	125	321
3	OD expertise officers	46	13	62
4	OH Dept.	59	4	63
5	OD Clinics	50	3	53

Source: OH annual reports by VHEMA –MOH, 2015 (from 55 provinces and 8 OH/Health Centers/Hospitals of Industrial Branches/Sectors)

As mentioned above, there is no any university of medicine and pharmacy that train physicians/doctors specialized in occupational health. Since OSH Law in effective (1 June 2016), to become occupational health physicians/doctors, the medical doctors should attend 3 months certificate training course on occupational disease at NIOEH or 9 months special orientation on occupational disease at the Institute of Preventive Medicine and Public Health of Hanoi Medical University.

Before 1 June 2016, physicians/doctors involved in OD diagnosis and detection just attended the short courses from one week to three months organized by preventive medicine Institutions, e.g. NIOEH and Ho Chi Minh Institute of Public Health. According to the data of the training activities on occupational disease from 2010-2015 organized by NIOEH and HoChiMinh Institute of Public Health in the National program on OD prevention 2010-2015 and ADB project on strengthening capacities in OD detection and diagnosis for OD physicians/doctors at provincial and district levels, there were 69 courses organized and for 1,689 MDs working in OH area (*Source: The National OSH Profile 2010-2015 by MOLISA, 2016*)

For health staffs working in the health unit/center at enterprise, they need to attend the certificate training course on occupational health (see more details in the Item 3.7.1). The training institutions are certified by MOLISA according to the requirements of training these personnel as stipulated in Gov. Decree No 140/2018/ND-CP dated 8 Oct. 2018 on amendment of some articles of OSH Law related to OSH training.

For occupational hygienists, there is no any university that trains this specialization. If any OSH personnel want to be involved in the working environment monitoring, they need to attend the 1 month course of working environment monitoring (see Item 3.7.1 for more details of training program). The training institutions that are certified by MOH, are 3 Institutions of the preventive medicine system (the National Institute of Occupational and Environmental Health (NIOEH), the Institute of Public Health (Ho Chi Minh City), the Nha Trang Pasteur Institute). Reported by NIOEH and HoChiMinh Institute of Public Health from 2010-2015 on the training activities on working environment monitoring organized in the National program on OD prevention 2010-2015 and ADB project on strengthening capacities for OH staffs at provincial and district levels, there were 42 courses organized and for 1,080 OH staffs working in OH area (*Source: The National OSH Profile 2010-2015 by MOLISA, 2016*)

Occupational health personnel are included in the human resource of health sector in general and preventive medicine in particular that play an important role in the care, protection

and improvement of the people's health including workers' health. The following is analysis of causes for the shortage of preventive medicine personnel including OH personnel.

Currently the training, recruiting and using human resources for the preventive medicine system is an urgent issue in the development of the Health sector's Planning, Strategy and Policy. For many years, the training program for preventive medicine human resources in training institutions has not really attracted students to attend, the training program has not been consistent, there is no close association between theory and practice (school – hospitals /institutions). In addition, the remuneration (salary, allowance) for preventive medicine staff is low, inadequate, not commensurate with the specific labor of the industry. The above fact leads to the situation that the staff structure working in the units is not reasonable, there is a lack of staff with formal training, in-depth knowledge in the fields of preventive medicine, many officials are trained in subjects that are not suitable for work requirements, graduates do not want to work in preventive medicine facilities and staff do not feel secure to work with prevention work.

According to the 2009 statistics, the whole country has about 16,500 health workers working in the field of preventive medicine at central, provincial and district facilities. By 2011, this number reached approximately 17,100 staff, increasing only about 3.5% compared to 2009, showing that the growth in the number of human resources for preventive medicine in general is still very modest. In comparison with the provisions of Joint Circular No. 08/2007 / TTLT of the Ministry of Health and the Ministry of Home Affairs dated June 5, 2007 on the non-business payroll norms in state health facilities (considered as the demand norm of health sector), the above number of human resources only meets about 42% of the staff needs for the preventive medicine system in the country. Thus, it is necessary to add about 23,800 staff, accounting for 58% of the total demand for human resources. Analysis of the need to increase human resources by level shows that for the central level is 1,018 (accounting for about 4.3%), at the provincial level 5,340 (accounting for 22.4%) and at the district level 17,508 (accounting for 73.5%). . Analyzing according to the structure of the training area and the training level, it can be seen that the demand for medical and pharmaceutical staff is about 77.6%, for the other backgrounds about 22.4%. More specifically: The need for medical doctors / preventive medicine is about 33.8%; for public health bachelor about 16.7%; for bachelor's medical testing about 5.3%; about 4.8% for intermediate technicians, about 5.9% for midwives, 4.6% for university pharmacists, 3.8% for intermediate pharmacists; While human resources at medical secondary level have the demand to decrease at rates appropriate to each facility,

especially for units at the provincial level. For other backgrounds, including staff of biotechnology, environmental technology, analytical chemistry, bachelor of economics, information technology, sociology ... the number of human resources is about 5300 people , accounting for 22.5% of the total number of on-demand deprivation, of which the highest concentration is in university graduates, accounting for 57% of the total number of additional needs in this group.

To meet the needs of preventive medicine human resources nationwide, a network of universities, schools of medical and pharmaceutical, colleges and secondary schools in all three regions and in most provinces and cities is established. Current situation of tertiary education: The country has 26 medical human resources training institutions of university level, of which 18 are public institutions. Currently, there are 5 universities training bachelor of public health and 7 schools for training preventive medicine doctors. College training: As of 2010, there are 74 colleges, including 3 schools under the Ministry of Health, the rest under provinces and cities. The number of medical colleges upgraded from medical secondary schools has increased rapidly in the last two years. Secondary training: There are 44 schools directly under the provinces, cities or centrally managed by the Ministry of Health. Most of the provinces and cities nationwide already have a vocational training institution for intermediate professional health workers (nurses, pharmaceutical technical workers).

We are currently maintaining 8 training modes for preventive medicine staff at universities, colleges and intermediate schools across the country, including: Formal training; Contract training by address; Joint training; Election training; Training while working and studying; Training two degrees; Certification training for demanding learners and Continuing Training.

With an extensive network of medical and pharmaceutical schools and a rather diverse and plentiful training method, over the past years the training system has basically provided sufficient staff in the field of preventive medicine according to qualifications the same type of professional diploma as today. However, compared with the human resource needs specified in the Joint Circular No. 08/2007 / TTLT of the Ministry of Health and the Ministry of Home Affairs on the non-business payroll norms in state health facilities, the ability to meet Medical and pharmaceutical training institutions across the country also need to increase about 2 times the current training capacity* .

(*Source: **Human resources for preventive medicine: current situation, challenges and solutions, Preventive Medicine Journal, 2014. <http://www.tapchihocduphong.vn/tin-tuc/dien-dan-y-hoc-du-phong/nhan-luc-y-te-du-phong-thuc-trang-thach-thuc-va-giai-phap-o81E2104B.html>*)

Regards training MDs specialized in preventive medicine, it can solve the shortage of MDs at different levels as analyzed above. According to Table 2. 13. Health professions graduates in university 2013-2018 in Part 2, each year, from 2013-2018 in average about more than 3000 MDs specialized in preventive medicine were graduated from university of medicine. These preventive medicine doctors can work in preventive medicine system, e.g. preventive medicine Institutions, Provincial/city Preventive Medicine Centers (now changed to Centers for Disease Control, CDCs), Centers for Occupational Health and Environmental Protection and Health centers/Occupational Health Centers at Industrial Branches. However, preventive medicine MDs cannot be involved in health examination and treatment in general according to the Law of Medical Examination and Treatment. In Oh area, they cannot be involved in health check-up and OD detection and diagnosis in special. So, they cannot become MDs specialized in ODs, just can provide another OH services, e.g. working environment monitoring, etc. As a results, it need to develop a special curriculum for training MDs specialized in OD in university of medicine as in other country like Japan, US. And European countries, etc. to deal with the shortage of these personnel.

For medical staffs working at enterprise, the large state and foreign investment companies can hire medical doctors, assistant doctors, nurses, etc. because they can pay high salary while in private and medium size enterprises cannot. There is no problem for these personnel to get the certificate of training on occupational health.

For labour protection/occupational safety engineers, there are two universities over the country that provide trainings. According to data published by the University of Trade Union (Hanoi), from 1992 to 2012, the Labor Protection Department trained about 2,000 engineers, meaning there are only 100 Labor Protection/occupational safety engineers in average each year. "come out" from here. From school years of 2010-2015, the University of Trade Union (Hanoi) trained 273 labor protection engineers, and from 2013-2015, 23 Master of OSH management and 68 occupational safety officers.

At Ton Duc Thang University: By 2015, the Faculty of Environment & Labor Protection has enrolled 19 full-time undergraduate courses, 03 undergraduate courses for both working and studying people and 01 diploma course in two branches of labor protection. From 2010 to 2015, the University had 06 courses of Labor Protection Engineer graduating on schedule and a number of graduates exceeding progress with the number of more than 193 graduates. The rate of students employed after one year of graduation: year of 2013 (reaching 90%), 2014 (reaching 95%), 2015 (reaching 95%). In addition, the Center for Occupational Safety and

Environmental Technology (COSENT) under Ton Duc Thang University also organized 16 short-term training courses on Business Safety, Health, Safety and Environment (HSE) with Training time is 8 months. The course content includes specialized subjects related to occupational safety and health and the environment, helping students to understand the basics of relevant issues.

(Source: The National OSH Profile 2010-2015 by MOLISA, 2016)

With the actual number of trained labour protection/occupational safety engineers by two universities mentioned above, the shortage of these personnel working at enterprises is very serious as according to the OSH Law, 2015, each enterprise with 300 or more employees must arrange at least one full-time OSH officer. For specific enterprises, in production there are many dangerous factors, from 50 employees or more must also arrange a person to be in charge of OSH. Enterprises with 1,000 or more employees must set up OSH departments.

3.10. Activities and Involvement by International Organizations, Academic Institutes and Non-Governmental Organization

3.10.1. OSH activities and involvement by international organizations, academic institutes and other agencies, such as Non-Governmental Organization

➤ ILO office in Vietnam:

Working in partnership with the Government of Viet Nam, especially the Ministry of Labour, Invalids and Social Affairs, the Viet Nam General Confederation of Labour, the Viet Nam Chamber of Commerce and Industry, and the Viet Nam Cooperative Alliance, the ILO has offered support through policy advice, capacity building and technical cooperation to open opportunities for women and men to gain access to better jobs and have a voice in the decisions that affect their lives.

Among the key issues that the country has been cooperating with the ILO are green jobs, skills development, labour statistics, industrial relations development, occupational safety and health and social security. International labour standards and gender equality are viewed as cross-cutting issues being mainstreamed in all the above key issues under the framework of cooperation between the ILO and our tripartite constituents.

The ILO in Viet Nam is now helping Viet Nam implement the [2017-21 Decent Work Country Programme](#), a continuation of the first two successful decent work country cooperation frameworks which covered the periods of 2006-10 and 2012-16.

The third Decent Work Country Programme between the ILO and tripartite constituents (the

Government, the workers' and employers' organizations) aims to address the decent work challenges faced by the country.

It sets out three country priorities namely:

- Promote decent employment and an enabling environment for sustainable entrepreneurship opportunities;
- Reduce poverty by extending social protection for all and reduce unacceptable forms of work, especially for the most vulnerable; and
- Build effective labour market governance compliant with fundamental principles and rights and at work.

There are some recent OSH projects/programs:

- **Decent work in Viet Nam:** The Decent Work Country Programme for Viet Nam is the main framework for ILO co-operation with the Government, workers' and employers' organizations over the 2017-21 period. It is in line with the Viet Nam United Nations One Plan for the same period, which embraces the Sustainable Development Goals, and the national Five-year Socio-Economic Development Plan . The third Decent Work Country Programme sets out three country priorities namely to:
 - Promote decent employment and an enabling environment for sustainable entrepreneurship opportunities;
 - Reduce poverty by extending social protection for all and reduce unacceptable forms of work, especially for the most vulnerable;
 - Build effective labour market governance compliant with fundamental principles and rights and at work.

- **Building a generation of safe and healthy workers - SafeYouth@Work** (1 December 2014 - 18 December 2018). The global project of which Viet Nam is a pilot country seeks to make workplace safer and healthier for young workers, aged 15-24 years, and to promote a culture of prevention on occupational safety and health.
 - **Supplementation to the Occupational Safety and Health project in Hazardous Work in Viet Nam (2016)**. This supplementation project aims to build on the outcomes of the previous phase, promote effective consultation and provide the Government with improved recommendations on policies and regulations on occupational safety and health under the Law on Occupational Safety and Health.
 - **Effective Implementation of National OSH Programme for Improving Safety and Health at the Workplace in Viet Nam**. The project contributes to implementing Decent Work Country Programmes (DWCP) and National OSH Programme through realization of safe and healthy workplaces and communities, and productive workplace environment in small and medium-sized enterprises (SMEs) and poverty reduction in the community level. The project is implemented in cooperation with WHO to promote One-UN Policy.
- **WHO office in Vietnam:** WHO's work in Viet Nam is based on the country's need for support in implementing its national health policies, strategies and plans (NHPS) to address key health issues and fulfil its commitment to the WHO Constitution and other international health laws and treaties. Global and regional priorities as well as joint priorities with the United Nations further guide the work of WHO in Viet Nam. Providing the overarching framework is the 2030 Agenda for Sustainable Development, which was adopted at the United Nations General Assembly in September 2015.

One Strategic Plan 2017 – 2021:

The One Strategic Plan 2017-2021 represents the programmatic and operational framework for delivering United Nations (UN) support to the Government over the next five years and sets out how the UN will deliver as one in support of national development priorities. The Plan is aligned with the Socio-Economic Development Strategy 2011-2020, the Socio-Economic Development Plan 2016-2020, the Sustainable Development Goals (SDGs) and Viet Nam's international human rights commitments.

In preparation, the UN conducted an Independent Review of the One Plan 2012-2016, a Common Country Assessment, a Consultative Review of the Role, Position and Partnerships for the UN in

a Lower Middle-Income Context, a strategic planning process and extensive consultations with the Government, development partners and other stakeholders.

National health policies, strategies and plans of Viet Nam

All top-level decisions in the country come from the Communist Party of Viet Nam. In October 2017, the sixth plenary session of the 12th Party Central Committee adopted a new resolution on the protection, care and improvement of people's health (No. 20-NQ/TW). It updated the previous resolution of the 7th Party Central Committee in 1992. Incorporating findings from a stock-take of the implementation of the 1992 resolution and an assessment of the current situation, the new resolution includes set viewpoints and objectives of national health policy as well as major tasks and specific targets to achieve by 2025 and 2030.

Three strategic priorities of WHO in Viet Nam

Strategic priorities 1: Strengthening key health system functions to deliver the system objectives, towards universal health coverage

WHO will support the Government of Viet Nam in the following areas laid out in Resolution No. 20-NQ/TW:

- Renovate fundamentally and comprehensively the training of human resources for health, meeting both ethical and professional requirements in conditions of proactive and active integration into the world.
- Renovate health financing to mobilize resources adequately and equitably for effective protection, care and improvement of the people's health, with the focus on vulnerable people, ethnic minority people, and people living in remote, mountainous, border and island areas.
- Increase domestic resources for prevention and control of priority public health conditions such as HIV/AIDS, tuberculosis and [malaria](#).
- Renovate the organization, provision, and management of health care services, focusing on grassroots health system, commune-level health system serving as frontlines in disease prevention and health care.
- Raise the capacity of research and production of drugs and vaccines.
- Improve the quality of health care services, basically overcome the hospital overcrowding through strengthening of primary care level.
- Pay special attention to maternal and child health, especially in mountainous, remote, difficulty areas, border and island areas.
- Develop appropriate models for elderly care.

Strategic priorities 2: Building sustainable national capacities and partnerships to ensure public health security and safety

- Ensure public health security, strengthen and improve the effectiveness of detecting, preparing for and responding to the epidemic and public health emergencies.
- Urgently complete the system of standards and indicators on food safety.
- Implement synchronous measures to minimize negative impacts from environmental pollution and climate change on health.
- Ensure access to clean water and hygienic latrines.
- Synchronously implement measures to ensure traffic safety, work safety, prevent and control accidents, injuries and occupational diseases.

WHO will support the Government of Viet Nam in the following areas laid out in Resolution No. 20-NQ/TW: WHO will also promote and facilitate policy and technical dialogue on antimicrobial resistance across sectors in Viet Nam. The Organization will provide strategic support for scaling up comprehensive and sustainable actions to tackle antimicrobial resistance and related specific pathogens.

Strategic priorities 3: Managing effectively communicable and noncommunicable diseases of public health importance

WHO will support the Government of Viet Nam in the following areas laid out in Resolution No. 20-NQ/TW:

- End AIDS epidemic, reduce tuberculosis burden and eliminate malaria.
- Firmly strengthen the vaccination system. Increase the number of vaccines in the expanded vaccination program in line with the budget.
- Strengthen propaganda and mobilization to build a civilized, healthy lifestyle, keep good hygienic habits; eliminate backward practices that negatively affect health.
- Increase excise taxes on goods harming health such as alcoholic beverages, carbonated drinks and cigarettes to limit consumption.
- Synchronously implement prevention and control of noncommunicable diseases; focus on preventive medicine, improve capacity for screening, early detection and control of diseases; promote the management and treatment of noncommunicable diseases, chronic diseases, long-term care at local health facilities.

Through this support, Viet Nam will achieve its goal to extend life expectancy at birth to 74.5 years by 2025 and 75 years by 2030 and contribute substantially to WHO's global target of *1 billion more people enjoying better health and well-being*.

➤ **Vietnam Society for Occupational Safety and Health**

Functions and duties of this agency:

1. To gather and unite the forces performing the management and scientific-technological research and practical activities in the field of labor insurance; coordinate activities of all levels of the Association and members nationwide to further promote the work of labor insurance and OSH.
2. Organize information, propagate, exchange professional knowledge, disseminate knowledge and coordinate with State agencies to provide professional training for officials and experts in the field of OSH. Propagating, educating, and raising awareness and understanding about OSH for employees and employers.
3. To contribute opinions to the Party and State on OSH guidelines, policies, plans and measures; providing social assessment consultancy and criticism on issues related to OSH.
4. Participating in scientific and technological development activities, implementing projects, scientific topics on OSH. Implementation of OSH services for production, employees and employers.
5. Closely cooperating with State agencies, social organizations and establishments related to the work of labor insurance and OSH.
6. Cooperate and exchange experiences with associations, international and regional organizations in the field of OSH in accordance with the law.

➤ **Vietnam Society for Occupational Health**

1. To participate in scientific and technological development activities, implementing projects on occupational health, eg. researches on, monitor, assess and forecast risk factors, hazardous working environment, and occupational safety, occupational diseases and adding to the list of compensated occupational diseases in Vietnam; in development of methods, standards and national technical regulations for occupational hygiene and occupational disease diagnosis; in expertise and examination of occupational diseases and work-related diseases;
2. Organize information, propagate, exchange professional knowledge, disseminate knowledge and coordinate with State agencies to provide professional training for officials and experts in the field of OSH. Propagating, educating, and raising awareness and understanding about OSH for employees and employers.

3. To contribute opinions to the Party, State and government management organizations on OSH standards, guidelines, policies, plans and measures; providing social assessment consultancy and criticism on issues related to OSH.

4. Cooperate and exchange experiences with associations, international and regional organizations in the field of OSH in accordance with the law.

3.11. Occupational Health Services including Industrial Hygiene

3.11.1. List of occupational health service providers and their service contents and quality (national/private):

No.	Occupational health service providers	Service contents	Quality
1	The National Institute for Occupational and Environmental Health (NIOEH)	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, health staffs at enterprises, eg. Occ. Physicians, nurses; OSH network volunteers, etc) - First aid training - Certificate Trainings on Industrial hygiene, working environment monitoring, psycho-physiology of work & ergonomics, OD detection, diagnosis; OH for Occ. Physicians, nurses, etc 	National
2	Vietnam National for Occupational Safety and Health (VNIOOSH) and their	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, 	National

	2 Regional Institutions in the central and South of VN)	<ul style="list-style-type: none"> - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH officers OSH network volunteers,) 	
3	Institute of Public Health in Ho Chi Minh City	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, health staffs at enterprises, eg. Occ. Physicians, nurses, OSH network volunteers) - First aid training - Certificate Trainings on Industrial hygiene, working environment monitoring, psycho-physiology of work & ergonomics, 	National
4	Nha Trang Pasteur Institute	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH network volunteers) 	National

		- First aid training	
5	Tay Nguyen Institute of Hygiene and Epidemiology	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH network volunteers) - First aid training 	National
6	The Institute of Maritime Medicine	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH network volunteers) - First aid training 	National
7	The Departments of Public Health in Medical Colleges and Universities over the country	<ul style="list-style-type: none"> - Health check-up (including pre-employment, periodic), - OSH trainings (for employers, employees) - First aid training - Certificate Trainings on OD diagnosis 	National
8	13 Health Centers/Hospitals at Industrial Branch/Ministry	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), 	National

		<ul style="list-style-type: none"> - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH network volunteers) - First aid training 	
9	63 Provincial Centers for Disease Control (in 63 provinces)	<ul style="list-style-type: none"> - Industrial hygiene, working environment monitoring, - Health check-up (including pre-employment, periodic, Employment placement Health Examination), - Occupational disease examination (including OD detection and periodic OD examination) - OSH trainings (for employers, employees, OSH network volunteers) - First aid training 	National
10	Centers for Preventive Medicine in districts, towns and cities	<ul style="list-style-type: none"> - Working environment monitoring, - Health check-up (including pre-employment, periodic) - First aid training 	National
11	Health service at the grassroots, commune/ward and enterprise levels	<ul style="list-style-type: none"> - Periodic Health check-up - First aid training - First aid service for local enterprises 	National
12	Centers for environment monitoring (including Centers belong to Ministry/Department of Natural Resources and Environment and private ones)	Working environment monitoring	National and Private

13	State and General hospitals/clinics/health centers	- pre-employment and periodic Health check-up - First aid services	National and Private
14	63 Provincial and a Central Medical assessment/expertise Councils	- Medical assessment/expertise for occupational disease and injuries	National
15	Health stations/centers at enterprises	- pre-employment and periodic Health check-up - First aid services	National and Private
16	Institute of Labor Science and Social Affairs	- Working environment monitoring	National
17	Center for trainings	- OSH trainings	National and Private
18	Centers for public health and environment protection	- OSH trainings	Private

3.12.Support Mechanisms for Disadvantageous Group of Workers

3.12.1. Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors

- OSH policies for some particular groups of employees are regulated in OSH Law (2015), Chapter IV: Assurance of occupational safety and health for Particular groups of employees as follows:

Article 63. Occupational safety and health for female employees, minor employees and employees with disabilities, Occupational safety and health for female employees, minor employees and employees with disabilities must comply with the Labor Code, the Law on People with Disabilities and this Law.

Article 64. Conditions for employment of elderly employees to perform heavy, hazardous or dangerous occupations or jobs:

1. Elderly employees may be employed to perform heavy, dangerous or dangerous occupation18s or jobs or extremely heavy, hazardous or dangerous occupations or jobs that adversely affect their health when the following conditions are fully met:

- a/ The elderly employee is experienced and highly skilled with at least 15 full working years; and possesses a vocational certificate or is recognized as artisan in accordance with law;
- b/ The elderly employee is physically fit to perform heavy, hazardous or dangerous occupations or jobs according to the health standards issued by the Minister of Health after consulting line ministries;
- c/ The elderly employee may be employed for no more than 5 years;
- d/ The elderly employee shall work together with at least another employee who is not elderly.
- dd/ The elderly employee works on a voluntary basis.

2. The Government shall detail this Article.

Article 65. Occupational safety and health in case of labor lease

1. A labor leasing enterprise has the following responsibilities:

- a/ To negotiate with the hiring party on the guarantee of lawful occupational safety and health-related rights and interests of leased employees, which must not be lower than those of the hiring party's employees who have the same qualification, perform the same jobs or perform jobs of the same value; to include these contents in the labor lease contract and perform obligations of the employer in accordance with the Labor Code and this Law;
- b/ To coordinate with the hiring party and inspect if the hiring party guarantees occupational safety and health for leased employees. To guarantee all interests of leased employees in case the hiring party fails to fully implement its commitments on occupational safety and health guarantee stated in the signed labor lease contract;
- c/ To preserve occupational safety and health dossiers related to leased employees; to make reports on occupational accidents and diseases in accordance with Articles 36 and 37 of this Law.

2. A hiring party has the following responsibilities:

- a/ To fully implement its commitments in the labor lease contract; to have no discriminative treatment in occupational safety and health between leased employees and its own employees;
- b/ When a leased employee gets an occupational accident or a technical incident endangering occupational safety and health, to promptly provide first aid and emergency care for the victim and at the same time notify the labor leasing enterprise and notify and investigate the case as prescribed in Articles 34 and 35 of this Law;
- c/ To organize occupational safety and health training for leased employees in accordance with this Law, except the case that the labor leasing enterprise has provided appropriate training for leased employees in the jobs they are assigned; to biannually and annually review occupational

accidents and diseases of leased employees and send reports thereon to the labor leasing enterprise;

d/ To coordinate with the labor leasing enterprise in investigating occupational accidents; to preserve occupational safety and health dossiers related to leased employees.

3. Leased employees shall observe occupational safety and health regulations, procedures and measures issued by the hiring party.

4. The Government shall prescribe in detail occupational safety and health in case of labor lease; responsibilities of labor leasing enterprises and hiring parties for leased employees, guaranteeing lawful rights and interests of leased employees in accordance with the Labor Code and this Law.

- **Article 66.** Occupational safety and health at workplaces with employees of different employers . At a workplace where there are many employees of different employers working together, project owners shall make arrangement for these employers to jointly prepare a document which clearly specifies the occupational safety and health responsibility of each employer and assign staff to coordinate in occupational safety and health examination.

Article 67. Occupational safety and health for Vietnamese guest workers

1. Vietnamese guest workers referred to in this Article include Vietnamese employees who are assigned by their employers to perform tasks overseas and those working overseas under contracts as defined in the Law on Vietnamese Guest Workers.

2. Employers shall comply with occupational safety and health laws of host countries and the following provisions:

a/ To fully implement occupational safety and health measures and occupational accident and disease insurance regimes, and perform their responsibilities to employees as prescribed in this Law; in case regulations of host countries provide better benefits for employees, to apply such regulations;

b/ To coordinate with competent agencies of host countries in investigating occupational accidents and diseases occurring to employees;

c/ For fatal and serious occupational accidents, to provide dossiers and materials related to the accidents to Vietnam's provincial-level occupational safety and health inspectorates of the places where their head offices are based.

3. Vietnamese guest workers shall comply with Vietnam's laws and the laws of host countries unless otherwise prescribed by treaties to which the Socialist Republic of Vietnam is a contracting party.

Article 68. Occupational safety and health for domestic workers

1. Employers shall instruct domestic workers how to use machinery, equipment and utensils and implement fire and explosion prevention and fighting measures in their homes which are related to domestic work; and implement other regulations to guarantee occupational safety and health for domestic workers.
2. Domestic workers shall strictly follow instructions on use of machinery, equipment and utensils, and on fire and explosion prevention and fighting.
3. The Minister of Labor, War Invalids and Social Affairs shall detail occupational safety and health provisions applied to domestic workers.

- Article 69. Occupational safety and health for home-based employees

1. Upon entering into written agreements with employers on home-based working, employees shall ensure occupational safety and health requirements for the work assigned to them.
2. In case an occupational accident occurs during the working process at home, the home-based employee or his/her relatives shall inform it immediately to the employer.

If the victim of the occupational accident has participated in occupational accident and disease insurance, he/she is entitled to policies and benefits applicable to victims of occupational accidents and diseases prescribed in this Law.

If the victim of the occupational accident is not subject to occupational accident and disease insurance, the employer shall provide him/her with benefits prescribed in Clauses 1, 2, 3, 4, 5, 6, 7, 8 and 10, Article 38 of this Law.

3. Employers shall check the occupational safety and health conditions at the workplace of home-based employees; implement commitments in the agreements with the home-based employees; and include occupational accidents occurring to home-based employees in the general report on occupational accidents as prescribed in Article 36 of this Law.

➤ **Government promulgated some legislative documents on SME support as follows:**

- **The Law of SME support No. 04/2017/QH14** dated 12 June 2017: This Law include 4 chapters and 35 articles that provides for the principles, contents, and resources to support small and medium enterprises; responsibilities of agencies, organizations and individuals related to SME support.
- Resolution No. 35-NQ / CP on supporting and developing enterprises to 2020;
- Decree No. 34 / ND-CP on the establishment, organization and operation of the Credit Guarantee Fund for SMEs;

- Decree No. 39 / ND-CP on organization and operation of the SME Development Fund .
 - Circular No. 34/2019/TT-BLDTBXH on guiding management of labour, wages, remuneration and bonuses for small and medium enterprise development fund. This Circular provides guidelines for management of labour, salaries, remunerations and bonuses paid to employees and managers of the small and medium-sized enterprise development fund
 - Circular No 06/2019/TT/BKHDT on the network of consultants for SMEs and
 - *Circular No 05/2019/TT/BKHDT* on subsidies for training courses for women-owned SMEs
- **Circular No 06/2019/TT/BKHDT – consulting support for SMEs.** Issued by the Ministry of Planning and Investment, Circular 6 gives guidelines and instructions on rules around the network of consultants providing advice to SMEs and support through a network of consultants. The government has prescribed certain criteria for companies that can avail subsidized support through the network of consultants. SMEs, as per the law, are defined as micro, small, and medium-sized enterprises having no more than 200 employees registered with the state social insurance scheme and with a total capital not exceeding US\$4.4 million (100 billion VND) a year.

To avail the consulting services and subsidies, an SME must submit a dossier that includes:

- A copy of the business registration certificate; and
- A consulting service agreement with the business and consultant belonging to the counselor network.

SMEs can then avail the following subsidies:

- Micro businesses can avail a 100 percent subsidy but no more than US\$128 (3 million VND) a year;
- Small enterprises are entitled a subsidy of 30 percent of the consultancy contract value but not exceeding US\$213 (5 million VND) a year; and
- Medium enterprises are entitled to avail a subsidy of 10 percent of the contract value but not more than US\$426 (10 million VND) a year.

The government is also expected to launch an online platform for organizations and individuals to register and be automatically admitted to the consultant network. SMEs will then be able to look up information on the consultant network, including the name, registration number, and

other details on the websites of the National Portal as well as the local ministry websites, such as the Government Inspectorate.

If an individual wants to apply and be a part of the consultant network, he or she needs to submit a CV, training certificate, experience record, and other supporting documents. For a consulting organization, it needs to submit an establishment license, experience files, and any relevant documents by regulatory bodies. The relevant authority at the local ministry will then consider the application and publish the results on its website within 10 working days.

Administrative procedures

The government introduced Decision no 1696/QĐ-BTP on administrative procedures to allow SMEs to apply for subsidies on consulting support. This decision came into effect on August 16.

In order to apply for consulting support, SMEs must submit records including:

- Declaration identifying them as a small, medium or micro enterprise according to the form in Decree 39/2018/ND-CP;
- Copy of business registration certificate; and
- Service contract between legal consultant and enterprise stating the consultation contents and service charges.

➤ **Circular No 05/2019/TT/BKHDT – training incentives for women-owned SMEs**

As per Circular No 5, the government will provide subsidies for Human Resources of SMEs owned by women. A women-owned SME as defined by the government is one or more women who own at least 51 percent of its charter capital. Details of the circular are below:

- The government will provide 100 percent subsidy for expenses for training in entrepreneurship, business administration, and advanced business administration for women at women-owned SMEs;
- A 100 percent subsidy of expenses in training courses for employees of SMEs located in extremely disadvantaged areas as per Decree No 118.2015/ND-CP; and
- A subsidy of at least 50 percent of expenses for organizing a training course in entrepreneurship and business administration.

The government will then open accounts for SMEs to join online training courses.

PART IV
OCCUPATIONAL SAFETY AND HEALTH LEVEL

5.4.National Policy and Strategies for OSH

5.4.1. Conditions, details and operational status of national policy, strategies and plans for OSH

5.4.1.1.National Policy and strategies related to OSH

Ensuring OSH for employees is a major and consistent policy of our Party since its establishment, and expressed in the Party's Documents through the congresses and in the Decision, Directive of the Party. In the 2010-2020 periods, the Party and State's guidelines, lines and policies are showed in the following documents:

- The political report submitted to the XI National Congress of the Party clearly states "Caring for labor protection; improving working conditions; limiting occupational accidents"; "Research, supplement and complete policies on labor protection, social insurance, maternity and other regimes and policies for female employees".
- In Directive 29-CT-TW (dated 18/09/2013), the Vietnam Central Committee of the Communist Party emphasized the need of promoting OSH activities during this period of industrialization, modernization and international integration and requires party committees, Party organizations, administrations, Fatherland Front and mass organizations to implement some tasks as follows: 1) to renew the existing educational content in the effort of enhancing awareness and increasing initiatives to ensure OSH; 2) to strengthen trainings on improving skills of prevention of occupational accidents and diseases and to ensure occupational health for workers; 3) to promote OSH researches and scientific and technological application in production and manufacturing machines/equipment to aimed at ensuring OSH and improving the working conditions and environment for employees; 4) to improve the effectiveness of state-level management for OSH; 5) to improve the policy aimed at diversifying social resources in the implementation of OSH activities; and 6) being actively in international cooperation of occupational safety and health.
- Decision 255/2006/QĐ-TTg dated 09/11/2006 by the Prime Minister approving the National Strategy of Preventive Medicine in Vietnam until 2010 and orientations towards 2020 stated: enhancing activities for environmental and occupational health; implementing strategies for monitoring the working environment; and preventing occupational diseases. Priority was given to monitoring and proposing measures to handle wastes capable of polluting the environment

and negatively affecting human health (e.g., hospital waste, industrial waste, plant-protection chemicals, etc.).

- Decision No. 122 / QĐ-TTg dated 01/10/2013 by the Prime Minister approving the National Strategy for health care, protection and promotion for people in the period 2011-2020, with a vision to 2030. The general objective is "To ensure all people receiving primary health care services, expanding to access and use the qualified health services. People are living in safe communities, developing good physical and mental health. Reducing morbidity, disability and improving physical health, increasing life expectancy and improving quality of population".

- The National Socio-Economic Development Strategy for the period 2021-2030 with 16 specific goals, in which one of 6 environment goal is 100% of production and business establishments meet environmental standards

- Decision No. 622//2017/QĐ-Ttđ dated 10 May 2017 on Issuing the National Action Plan for implementation of the 2030 program for sustainable development. In which, MOH is responsible to implement Goal 3: Ensure healthy lives and enhance well-being for people of all ages

Goal 3.7: Achieve universal healthcare coverage, including financial risk protection, access to essential healthcare services, drugs and vaccines, and are safe, effective, quality, and within affordability for all (Global target 3.8): Continue to implement the tasks and solutions of the National Strategy for the protection, care and promotion of the people's health in the period 2011 - 2020, with a vision to 2030.

Goal 3.8: By 2030, significantly reduce morbidity and mortality from toxic chemicals and pollution of the air, water and soil environments (Global target 3.9): Develop a project to reduce impacts of toxic chemical pollution, air, water and soil pollution on human health in the period 2021 - 2030.

5.4.1.2. National strategies and program on OSH

❖ **Gov. Decision No. 05/QĐ-TTg** dated 1 June 2016 by Prime Minister on Approval of the National Program on Occupational Safety and Health for the period 2016 – 2020

1. General goal

Caring for improving working conditions, reducing working environment pollution; prevent occupational accidents and diseases, take care of employees' health; raising awareness and

compliance with the law on labor protection, ensuring safety of lives for workers, property of the State, property of enterprises and organizations, contributing to sustainable development of the country.

2. Specific objectives to 2020

- a) The annual average, reducing 5% of the frequency of fatal occupational accidents;
- b) More than 50% of employees working in facilities at risk of common occupational diseases are entitled to occupational disease check-ups; Over 70% of large enterprises and 30% of small and medium enterprises with high risks of occupational diseases perform working environment monitoring;
- c) On average, an annual increase of 2,000 small and medium enterprises can effectively apply some basic contents of the management system of OSH, initially building a safety culture;
- d) More than 90% of people in charge of management, directing and organizing the implementation of OSH at district level and in the management boards of economic zones, industrial parks, export processing zones, High-tech parks are trained to improve capacity in OSH;
- dd) Over 80% of the employees perform occupations and jobs with strict requirements on OSH; 80% of OSH officers and health workers; 90% of OSH workers in production and business establishments are trained in OSH;
- e) More than 80% of people involved in the first-aid and emergency forces at the workplace are trained to update first aid;
- g) Over 80% of craft villages and 70% of cooperatives at high risk of occupational accidents and diseases have access to appropriate information on OSH;
- h) 100% of workers with confirmed occupational accidents and diseases receive treatment and rehabilitation in accordance with the law;
- i) 100% of fatal occupational accidents are declared, investigated and handled in accordance with the law.

TIME AND SCOPE OF THE PROGRAM

1. Time: Implementation in the period 2016 - 2020.
2. Scope: nationwide.

MAIN CONTENT OF THE PROGRAM

1. Activities to improve the capacity and effectiveness of the State management over OSH, including:

- a) Reviewing, amending and supplementing legal documents, standards and technical regulations on OSH;
- b) Continue to study the application of the International Labor Organization (ILO) standards on OSH;
- c) Improve capacity and effectiveness of product quality inspection, system of inspection, inspection and supervision of OSH;
- d) Investigate, statistically, synthesize and evaluate the situation of occupational accidents, occupational diseases and technical incidents causing serious OSH failure; consolidating the national database on OSH;
- dd) Implement the appropriate OSH management systems in enterprises, production and business establishments and trade villages that are at high risk of occupational accidents and diseases.

2. Activities to improve professional occupational health and health care for workers at the workplace, including:

- a) Taking measures to prevent and control common occupational diseases for agencies, units, enterprises, and business establishments at high risk of occupational diseases;
- b) Training to improve the capacity of diagnosis, assessment, treatment and functional rehabilitation for victims of occupational accidents and diseases; professional working environment monitoring, assessing harmful factors;
- c) To provide professional training and guidance to medical personnel at enterprises, production and business establishments; train first-aid and emergency forces at the workplace;
- d) Activities aimed at preventing, minimizing and overcoming consequences of occupational diseases, especially TNT poisoning in the defense sector.

3. Activities of propagation, education, training and counseling on OSH include:

- a) Raise the operational capacity of OSH training and counseling centers;
- b) To consolidate training and communication programs and documents; professional training, support to expand the network of OSH coaches and communicators;
- c) Conduct training and propaganda about OSH; providing technical advice and support to improve working conditions for employers and employees under the Program's target;
- d) Improve the efficiency of mass movements to perform the work of OSH in the period of industrialization and modernization.

❖ **Gov. Decision No.** No.899/QD-TTg dated 20 June 2017 by Prime Minister on approving Target Program for Vocational Education, Employment and Occupational Safety during 2016 – 2020

1. *General objective:* Support the development of vocational education; promoting labor market development; improve the efficiency of labor supply - demand connection; creating jobs, increasing labor export, labor safety and hygiene to meet the requirements of national construction and development and international economic integration; Promote sustainable employment associated with increasing labor productivity, improving working conditions, increasing income and preventing occupational accidents.

2. *Specific objectives related to OSH to strive to 2020:*

dd) An average annual reduction of 5% in frequency of fatal occupational accidents in a number of sectors and fields at high risk of occupational accident (mining, construction, metal production, chemical production and some other professions and occupations).

e) Pilot support for 600 SMEs to effectively apply the OSH management system, gradually meeting international standards on OSH (OHSAS 18001, SA 8000, ...) and build a safety culture at work.

Project 3: Strengthen occupational safety and health

a) *Objectives of the Project:*

* *General goal:* Caring for improving working conditions, preventing labor accidents and occupational diseases; Raising awareness and compliance with the law on labor protection, ensuring safety for employees' lives, property of the State, property of enterprises and organizations, contributing to sustainable development. national firm.

**Specific goals up to 2020:*

- On average, 5% reduction in the frequency of fatal occupational accidents in some sectors and fields at high risk of occupational accidents (mining; construction; metal production and chemical production) ;

- Supporting a pilot of 600 small and medium enterprises to effectively apply the management system of OSH, step by step meeting international standards on OSH and building a culture of safety. in labor.

- Average annual support for training in OSH: 15,000 people doing occupations and jobs with strict requirements on OSH, 20,000 people doing heavy occupations and jobs toxic, dangerous;

10,000 people working in OSH, 2,000 people working in health care and 1,000 people doing safety and hygiene activities in enterprises, production and business establishments.

- Annually, on average, to support the dissemination of appropriate information on OSH to 50 trade villages and 200 cooperatives at high risk of occupational accidents and occupational diseases.

b) Scope and target of implementation:

* Scope: Depending on the nature and scale, each project activity is carried out in a number of provinces and centrally run cities.

* Objects of implementation: Ministries, branches, localities and units are assigned to perform the tasks of the project; key businesses, production and business establishments, industries / occupations with high risks of occupational accidents, occupational diseases and working environment pollution.

c) Main contents:

* Improve management capacity and effectiveness in terms of OSH

- Piloting the system of reporting and statistics on occupational accidents, consulting and supporting the law on OSH for employees working not under labor contracts;

- Evaluate samples, complete methods of classifying employees according to working conditions for heavy, hazardous and dangerous occupations and jobs in the process of international economic integration;

- To consolidate the national database on OSH (to conduct statistical surveys on the implementation of the project's objectives; to deploy information technology applications to manage the national database on OSH);

- Implement appropriate OSH management systems in enterprises, production and business establishments and trade villages that are at high risk of occupational accidents and diseases. .

* Propaganda, training, education to raise awareness, skills and compliance with the law on OSH

- Continue to improve and upgrade the training center for OSH under the Ministry of Labor, War Invalids and Social Affairs;

- Strengthening training programs, materials, communication; professional training, support to expand the network of OSH coaches and communicators;

- Deploying model training, counseling and training support on OSH for people doing occupations and jobs with strict requirements on OSH; people doing heavy, hazardous or

dangerous occupations and jobs; people in charge of OSH, health care and safety and hygiene in enterprises, production and business establishments;

- Introduce and perfect the contents and textbooks on OSH established in the period 2011 - 2015 into the teaching programs at higher education and vocational education institutions;
- Implement communication, consultation and support information on OSH to enterprises, craft villages, and cooperatives at high risk of occupational accidents and diseases.

* Consulting, supporting the application of technical measures to prevent occupational accidents and diseases

- Implement pilot application of safety technical solutions model in small and medium enterprises with high risk of occupational accidents (mining and processing of minerals; metallurgy; chemicals; construction and number of other industries and occupations);
- Consulting and assisting enterprises in building safe cultural models combined with technical solutions to improve working conditions in small production areas;
- Consulting and supporting pilot occupational accident prevention and control when using machines and equipment with strict requirements on occupational safety in the non-structural area (supporting inspection; consulting on selecting machines and equipment equipment; instructions and monitoring of use);
- Support for occupational disease examination and detection in occupational disease statistical surveys.

d) Funding for implementation

The total cost of implementing the project is 680 billion VND, of which: Central budget is 300 billion VND (non-business capital); Local budget 50 billion VND (non-business capital); Other mobilization 330 billion VND (non-business capital).

***The initial results of implementation of this program:**

On December 5, 2018, in Hanoi, the Ministry of Labor, War Invalids and Social Affairs held a three-year preliminary conference (2016-2018) Project 3 - Strengthening Occupational Safety and Health under the Program of Vocational education - Employment and occupational safety for the period 2016-2020.

According to reports from localities, by October 2018, over 4,500 enterprises have been consulted, built and effectively applied the OSH management system. In which, there are over 400 enterprises with intensive support, modeling the OSH management system according to the international standards on OSH; Building an occupational safety culture; The project

supports training for more than 60,000 people working in occupations and jobs with strict requirements on OSH and heavy, hazardous or dangerous occupations, OSH officers, health officers and OSH workers, reaching 100% of the set targets. Regularly support OSH information dissemination in 63 provinces, cities, over 40 craft villages, 600 cooperatives, over 50,000 small and medium enterprises, 2,000 farmer members working in hazardous and dangerous occupations. Activities of the Project on OSH activities are based on the principles of supporting and promoting the autonomy of employers and employees to participate in the work of ensuring OSH in order to sustain the goals.

However, due to the difficult economic situation, the project also faced many difficulties in operation, such as: summoning labor managers who perform safety work to participate in orientation training; coordinate to build a model for the management, measurement, inspection and assessment of the working environment; consulting to improve working conditions ...

At the conference, representatives of the Vietnam Chamber of Commerce and Industry informed: Implementing the program, by the end of November 2018, VCCI has organized 34 training courses for 1,940 people from 425 enterprises; organize 01 seminar to disseminate standards on OSH; Award Ceremony for the top 100 sustainable businesses in 2018 voted by the Business Council for Sustainable Development.

According to the representative of the Ministry of National Defense, the project has significantly improved the working environment for the entire army cadres and soldiers; raising awareness of OSH, minimizing occupational accidents and occupational diseases (On average, the number of occupational accidents decreases by 11%, the number of deaths decreases by 8.32%, the number of seriously injured people decreases by 19.77%).

Implementing the project, in the 3 years 2016-2018, Lao Cai province held 04 training courses on OSH knowledge for 255 managers at commune, ward and town levels of 09 districts and cities; organized 09 training courses to build OSH management system for 691 employers and employees working on OSH in enterprises; Organize conference to propagate and disseminate the law on OSH, Law on OSH for 420 leaders, officials of departments, branches, districts, cities, enterprises in the province.

Ministries, branches and localities also made a number of recommendations to better perform the project in the coming time, such as: Adjusting OSH training content and time accordingly to improve production and business efficiency and enterprise competitiveness in international integration; Strengthen inspection, examination and supervision for OSH work at enterprises; Guide and facilitate procedures to support OSH training funding from the Insurance Fund for occupational accidents and diseases for agencies and enterprises ...

(Source: <http://www.molisa.gov.vn/Pages/tintuc/chitiet.aspx?tintucID=28615>)

- ❖ **Gov. Decision No. 659/QĐ-TTg dated 20 may 2020** by Prime Minister on approving the Program on Care and Improvement of Employees' Health and Occupational Disease Prevention in the 2020 - 2030 period

GOAL OF THE PROGRAM

1. General objective: To protect, care for and improve employees' health, promote healthy lifestyles and nutrition in the workplace, and prevent and combat diseases, and occupational diseases for employees, ensuring the quality of human resources, contributing to the sustainable development of the country.

2. Specific goals

- a) The localities complete the construction of the database on monitoring of the working environment and occupational diseases by 2025 and connect to the national data system by 2030.
- b) Management of the workplace with harmful factors causing occupational diseases: manage 50% of the work establishments by 2025 and 80% by 2030.
- c) Inspecting the working environment monitoring: checking 30% of labor establishments with harmful factors causing occupational diseases by 2025 and 50% by 2030; 100% of labor establishments using asbestos will be monitored and supervised in accordance with regulations in 2025.
- d) By 2025: Integrating health care services for employees without labor contracts into primary health care at grassroots health care facilities (according to the Scheme on building and developing grassroots healthcare facilities in the new situation). 100% of labor establishments are consulted about non-communicable diseases, take measures to prevent and improve health, , provision of hygienic nutrition and suitable to working conditions, increase mobility at work.

- dd) Health management of workers at work establishments at risk of occupational diseases (including workers exposed to asbestos): 50% of workers at work establishments are at risk of Occupational diseases have access to information on harmful factors, preventive measures and early detection of occupational diseases by 2025 and 100% by 2030.
- e) By 2025: 100% of employees exposed to asbestos will receive health management and occupational medical examination; 100% of labor establishments using asbestos are supervised and monitored the working environment according to regulations.
- g) 100% of people suffering from occupational accidents and diseases receive first aid, medical examination, treatment and functional rehabilitation at the workplace.
- h) By 2030: 100% of employees in industrial zones and export processing zones will be consulted and provided with reproductive health care, HIV / AIDS prevention and breastfeeding services (for female employees).
- i) By 2025, to reduce 15% of the cases of food poisoning in mass in labor establishments and by 2030, reduce by 25% compared with the period 2010-2018.

SCOPE, SUBJECTS AND TIME OF PROGRAM IMPLEMENTATION

1. Scope and subjects: The program is implemented nationwide, including labor establishments, employers and employees; Priority is given to small and medium labor establishments, agricultural sectors, craft villages, female workers, elderly workers and workers without labor contracts and health care facilities.

2. Implementation time: From 2020 to 2030.

LIST OF PRIORITY PROJECTS FOR IMPLEMENTATION OF THE PROGRAM OF CARE AND ENHANCING WORKER' HEALTH AND OCCUPATIONAL DISEASE PREVENTION IN THE 2020-2030 STAGE

(Issued together with Decision No. 659 / QD-TTg dated May 20, 2020)

No.	Priority Projects	Implementing organizations	Organizations in coordination	Period	Budget
1.	Capacity building of occupational health, health care for workers, prevention of occupational diseases.	MOH	Units are qualified for training	2020-2030	State budget, other legal capital
2.	Enhancing occupational health systems/ organizations, medical personnel and first aid activities at production and business establishments.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital

No.	Priority Projects	Implementing organizations	Organizations in coordination	Period	Budget
3.	Building a system of testing centers - reference to ensure the quality of working environment monitoring results nationwide.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2030	State budget, other legal capital
4.	Reduce work burden, continuous working time, stress factor in some occupations, jobs in some labor establishments such as textiles, health care, electronics, leather shoes.	MOLISA	MOH, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital
5.	To ensure the conditions of payment to employees suffering from occupational diseases when taking medical examination and treatment beyond working time in labor establishments registered with the health insurance agency.	MOLISA	MOH, General Federation of Labour (VGFL), related ministries/sectors	2020-2022	State budget, other legal capital
6.	Guide and improve health care capacity for employees; implementing the basic occupational health service package for small and medium enterprises, craft villages and for employees without labor contracts.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2022	State budget, other legal capital
7.	Pilot a model of basic occupational health service for small and medium enterprises, craft villages and for employees without labor contracts.	MOH	Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital
8.	Occupational health management is integrated in the personal health management profile at the commune level.	MOH	Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital

No.	Priority Projects	Implementing organizations	Organizations in coordination	Period	Budget
9.	Improve the quality of workers' shift meals in some occupations.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, corporate capital and other legal capital
10.	Building and scaling up models for prevention of communicable and non-communicable diseases at the workplace.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2030	State budget, corporate capital and other legal capital
11.	Strengthen policy advocacy, improve communication capacity on health care and health promotion for employees	Vietnam General Federation of Labour (VGFL),	MOH, MOLISA, related ministries/sectors	2020-2030	State budget, corporate capital and other legal capital
12.	Develop and replicate prevention models for some common occupational diseases; strengthening capacity for treatment and functional rehabilitation for occupational diseases and occupational accidents.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2030	State budget, corporate capital and other legal capital
	Building a national database on working environment monitoring and occupational disease.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital
14.	Research on occupational hygiene and factors causing occupational diseases arising in new conditions	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2030	State budget, other legal capital
15.	Updated national profile on asbestos and human health.	MOH	MOLISA, Vietnam General Federation of Labour (VGFL), related ministries/sectors	2020-2025	State budget, other legal capital

4.2. Occupational Injury and Disease Statistics

4.2.1. Occupational injury and disease statistics:

4.2.1.1. Occupational injury

Figure 4.1 Situation of Occupational Injury from 2001-2019

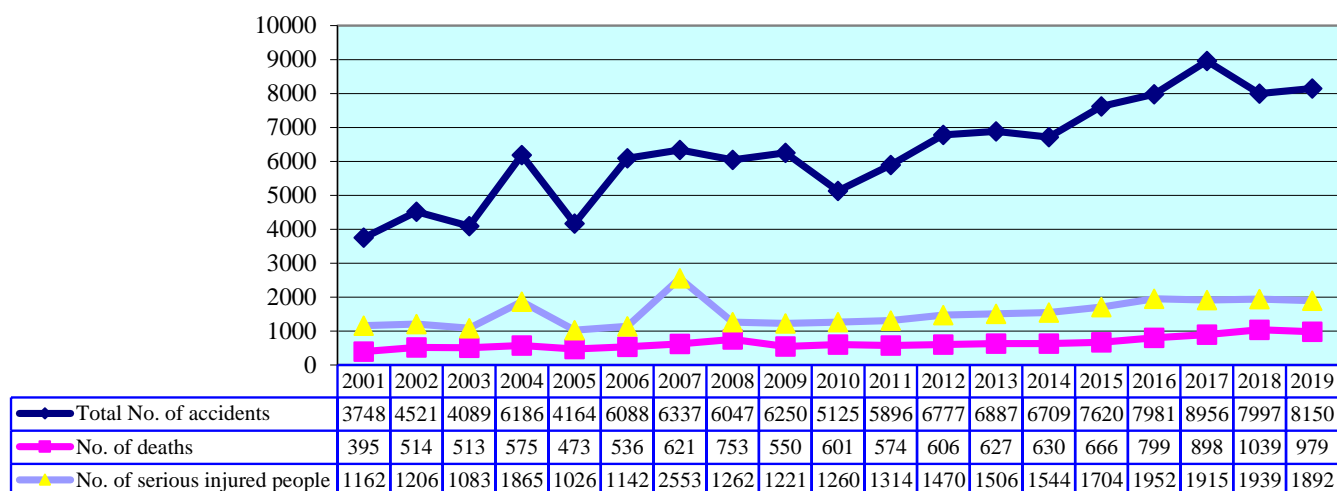


Table 4.1: Situation of occupational accidents from 2010-2019

Year	Total No. of cases	No. of cases with death	No. of cases with 2 and more victims	Number of deaths	No. of people with serious injuries	No. of female victims
2010	5125	554	105	601	1260	944
2011	5896	504	90	574	1314	1363
2012	6777	552	95	606	1470	1842
2013	6695	562	113	627	1506	2308
2014	6709	592	166	630	1544	2136
2015	7620	629	79	666	1704	2432
2016	7981	799	106	862	1952	2371
2017	8956	898	101	928	1915	2727
2018	7997	972	112	1039	1939	2667
2019	8150	927	146	979	1892	2771

Source: Annual Report on situation of occupational accidents and injuries, Occupational Safety Agency, MOLISA

Table 4.2: Status of occupational accidents and injuries during 2010-2019 in some high risk industries

Year	Construction		Mining		Electricity production & business/Mechanics & metallurgy	
	No. cases with death	No. of deaths	No. cases with death	No. of deaths	No. cases with death	No. of deaths
2010	390	Including both construction and mining	103		173	98
2011	1269	Including both construction and mining	210		225	77
2012	752	Including both construction and mining	93		No data	
2013	In construction, there were 28.6% of total accident cases with death and 26.5% of total deaths		In mining, there were 15.4% of total accident cases with death and 14.3% of total deaths		Electricity production & business, there were 6.3% of total accident cases with death and 5.8% of total deaths	
2014	There were 33.1% of total accident cases with death and 33.9% of total deaths in construction		In mining, there were 11% of total accident cases with death and 12% of total deaths		Electricity shock accounted for 23.8% of total accident cases with death and 21.8% of total deaths	
2015	In construction, there were 35.2% of total accident cases with death and 37.9% of total deaths		In mining, there were 5.5% of total accident cases with death and 6.9% of total deaths		Electricity shock accounted for 18.% of total accident cases and 17.2% of total deaths	
2016	In construction, there were 23.8% of total accident cases with death and 24.5% of total deaths		In mining, there were 11.4% of total accident cases with death and 12.9% of total deaths		In the sector of Mechanics & metallurgy, there were 5.9% of total accident cases with death and 5.6% of total deaths	
2017	In construction, there were 20.8% of total accident cases with death and 19.7% of total deaths		No data		In the sector of Mechanics & metallurgy, there were 6.9% of total	

Year	Construction		Mining		Electricity production & business/Mechanics & metallurgy	
	No. cases with death	No. of deaths	No. cases with death	No. of deaths	No. cases with death	No. of deaths
					accident cases with death and 8% of total deaths	
2018	In construction, there were 15.8% of total accident cases with death and 15.6% of total deaths		In mining, there were 9.6% of total accident cases with death and 10.5% of total deaths		In the sector of Mechanics & metallurgy, there were 7.9% of total accident cases with death and 7.4% of total deaths	
2019	In construction, there were 17.12% of total accident cases with death and 17.8% of total deaths		In mining, there were 10.8% of total accident cases with death and 10.2% of total deaths		In the sector of Mechanics & metallurgy, there were 9% of total accident cases with death and 9.3% of total deaths	

Source: Annual Report on situation of occupational accidents and injuries, Occupational Safety Agency, MOLISA

Table 4.3. Comparison of occupational injury indicators in three periods of 2006-2010 and 2011-2015 and 2016-2019

	Indicators	Average of OI during 2006- 2010 (1)	Average of OI during 2011- 2015 (2)	Average of OI during 2016- 2019 (3)	Comparison of 1&2 periods (%)	Comparison of 2&3 periods (%)
1	Number of accident cases	5809	6739	8271	16.02%	22.7%
2	Number of accidents with death	516	568	899	10.08%	58.3%
3	Number of people getting occupational injuries	6040	6857	8495	13.53%	23.9%
4	Number of deaths	576	621	952	7.71%	53.3%
5	Occupational injury frequency (deaths/ 100.000 workers)	7.97	7.56	6.74	-5.14%	-10.77%

Source: Annual Report on situation of occupational accidents and injuries, Occupational Safety Agency, MOLISA

Comparison of occupational injury in two periods of 2006-2010 and 2011-2015 showed that the number of accident cases, Number of accidents with death, Number of people getting occupational injuries, Number of deaths increased by 16%, 10%, 13,5% and 7,7%, respectively in period of 2011-2015 in comparison with that of 2006-2010. The Occupational injury frequency (deaths/ 100.000 workers) was decreasing by 5.14% in 2011-2015 in comparison with that of the period of 2006-2010 (Table 4.1).

Comparison of occupational injury in two periods of 2011-2015 and 2016-2019 showed that all indicators are increasing significantly in the period of 2016-2019 in comparison with that of 2011-2015, except the Occupational injury frequency (deaths/ 100.000 workers) that was significantly decreasing by 10.77%. Number of accidents with death and Number of deaths increased by 58.3% and 53.3%, respectively (Table 4.3)

➤ **Status of occupational injury in 2019 in details** (*Annual report on occupational accidents and injury by MOLISA, 2019*)

(Source: <http://antoanlaodong.gov.vn/catld/pages/chitiettin.aspx?IDNews=2453>)

According to the report of 63/63 provinces and centrally-run cities in 2019, nationwide, there were 8,150 occupational accidents causing 8,327 people to be injured (including the area with the labor relation and in the area where the employee is not working under the labor contract) in which:

- Number of deaths from occupational accidents: 979 people (of which, the area with labor relations: 610 people, a decrease of 12 people, corresponding to 1.93% compared to 2018; in workers working without contract labor: 369 people, a decrease of 48 people, corresponding to 11.5% compared to 2018);
- Number of fatal occupational accidents: 927 cases (of which, in the area with labor relations: 572 cases, a decrease of 06 cases, corresponding to 1.03% compared to 2018; in employees working without labor contracts: 355 cases, decreasing 39 cases, corresponding to 9.9% compared to 2018);
- Number of seriously injured people: 1,892 people (of which, the area with labor relations: 1,592 people, a decrease of 92 people, corresponding to 5.5% compared to 2018; in employees working without labor contracts: 300 people, an increase of 45 people, corresponding to 17.6% compared to 2018);
- Victims are female employees: 2,771 people (in which, the area with the labor relations: 2,535 people, an increase of 48 people, corresponding to 1.84% compared to 2018; in workers

working without labor contracts: 236 people, an increase of 58 people, corresponding to 32.6% compared to 2018);

- Number of occupational accidents with two or more victims: 146 cases (of which, the area with labor relations: 119 cases, an increase of 43 cases, corresponding to 56.6% compared to 2018; employment without labor contracts: 27 cases, reducing 09 cases, corresponding to 25% compared to 2018).

****The following production and business sectors, in which high rate of fatal work accidents occurred:***

- The service sector accounted for 19.2% of the total number of cases and 22.03% of the total number of deaths;

- The construction sector accounted for 17.12% of the total number of accidents and 17.8% of the total number of deaths;

- The field of mining and mineral exploitation accounted for 10.81% of the total number of cases and 10.17% of the total number of deaths;

- The field of mechanics and metallurgy accounted for 9.01% of the total number of cases and 9.32% of the total number of deaths;

- The field of construction material production accounted for 8.11% of the total number of cases and 7.63% of the total number of deaths.

****The major types of accidents causing deaths:***

- Traffic accident accounts for 30.64% of the total number of cases and 28.81% of the total number of deaths;

- Falls and falling accounted for 18.92% of the total number of cases and 17.8% of the total number of deaths;

- Rolling, clamping and rolling machines and equipment accounted for 15.32% of the total number of cases and 14.41% of the total number of deaths;

- Electric shock accounts for 9.01% of the total number of cases and 8.47% of the total number of deaths;

- Collapsing accounts for 7.21% of the total number of cases and 9.32% of the total number of deaths.

**** The main causes of fatal occupational accidents***

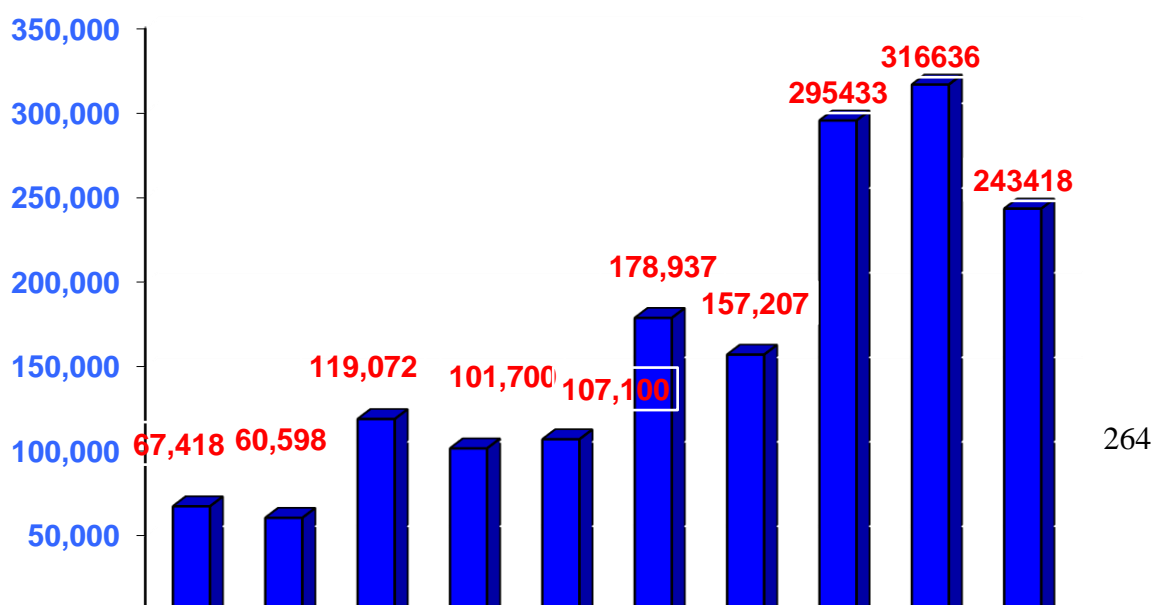
* The reason is that the employer accounted for 47.74% of the total number of cases and 49.99% of the total number of deaths, specifically:

- Employers who did not build safe working procedures and measures accounted for 24.32% of the total number of cases and 26.27% of the total number of deaths;
- The employer did not provide training on occupational safety or inadequate training of OSH for employees, accounting for 14.41% of the total number of cases and 13.56% of the total number of deaths;
- Due to the work organization and working conditions accounting for 7.21% of the total number of cases and 8.47% of the total number of deaths;
- Equipment not ensuring occupational safety accounts for 1.8% of the total number of cases and 1.69% of the total number of deaths;
- * The cause of employees violating occupational safety regulations accounted for 14.41% of the total number of cases and 14.41% of the total number of deaths.
- *The remaining 37.85% of the total number of occupational accidents and 35.6% of the total number of deaths occur due to other reasons such as traffic accident, occupational accident caused by others, avoidable objective causes.

4.2.1.2. Occupational disease statistics:

According to the annual report of occupational health, every year about 100,000-300,000 workers are involved in occupational disease examination to detect occupational diseases. In 2019, 45 provinces among 63 provinces over the country organized occupational disease detection for 27 among 34 compensated occupational diseases. 243,218 workers who work in hazardous environment were examined occupational diseases in which 7,265 cases of occupational diseases were detected (accounted 3% of examined workers). Among 7,265 OD cases, occupational deafness accounted for the highest rate (58.6% of total cases), followed by occupational talcosis (15.3%), occupational chronic bronchitis (5.8%), occupational coal pneumoconiosis (4.5%) and silicosis (1.44%)

Figure 4.2. Number of workers involved in occupational disease detection from 2010-2019



Source: Annual Occupational health reports reported by Vietnam Health and Environment Management Agency (VIHEMA) in from 2010 to 2019

The number of employees involved in occupational disease detection is increasing by years. In average, about 200-300 thousand of employees who work in hazardous and very harmful working environment are examined occupational diseases.

Table 4.4. Number of workers involved in each occupational disease detection from 2015-2019

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
1	Occupational Silicosis	36,776	5,756	29,374	29,950	13,869
2	Occupational Asbestosis	1,739	276	5,013	9996	266
3	Occupational Byssinosis	2,483	3679	15,469	14419	4114
4	Occupational talcosis	12	0	14,703	17423	5073
5	Occupational coal pneumoconiosis	229	5671	15,299	36506	27164
6	Occupational Chronic bronchitis	11,611	10167	42,584	36328	56502
7	Occupational bronchial asthma	1,557	3096	4,117	11288	7346
8	Lead and lead compound poisoning	1801	1738	1,173	1342	1547
9	Benzene and benzene compound poisoning	18,927	28,481	20,918	15793	11179
10	Mercury and mercury compound poisoning	0	0	27	63	0
11	Manganese poisoning	7	0	0	42	54
12	TNT poisoning	3376	85	142	123	0
13	Arsenic poisoning	0	0	0	24	123
14	Pesticide poisoning	1011	342	4,200	276	99
15	Nicotine poisoning	363	803	584	311	211
16	Carbon monoxide poisoning	368	907	287	460	287
17	Cadmium poisoning	0	0	0	373	12
18	Noise-induced hearing loss	88,003	87,813	121,281	94,564	85,953
19	Occupational disease caused by compressed or decompressed air		0	2,110	13475	2930
20	Occupational disease caused by whole body vibration	49	969	1,655	1465	1708
21	Occupational disease caused by local vibration	1988	308	336	672	977
22	Occupational disease caused by ionizing radiation	1105	408	3,938	557	2762

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
23	Occupational cataracts		0	383	2264	1656
24	Occupational oil acne disease	970	931	581	1096	2336
25	Occupational melanosis	3181	6042	5,203	7344	5722
26	Irritant contact dermatitis caused by Chromium	960	59	86	4283	37
27	Occupational Skin disease caused by prolonged exposure to wet and cold environments	1622	1902	3,317	7387	3018
28	Occupational skin disease caused by exposure to natural rubber, chemical additives rubber	0	103	571	4931	1415
29	Occupational leptospirosis	191	61	32	55	1906
30	Occupational tuberculosis	244	276	568	2050	80
31	Occupational Hepatitis Virus B	344	757	819	1491	2830
32	Occupational hepatitis C		83	283	2543	1849
33	HIV infection by occupational accidents	0	134	390	622	393
34	Mesothelioma	0	0	0	1120	0
Total		178,937	157,207	295.443	316,636	243,418

The number of employees involved in occupational disease detection is increasing by years. In 2018, the highest number of employees were examined occupational diseases.

The number of employees who are examined occupational lung diseases/pneumoconiosis, (e.g. silicosis, talcosis, coal lung diseases, etc.), ODs caused by physical factors, especially noise induced deafness and occupational melanosis, accounted the highest rate.

Table 4.5. Numbers of workers suffering from each occupational disease from 2015-2019

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
35	Occupational Silicosis	1908	332	310	256	104
36	Occupational Asbestosis	57	0	0	0	0
37	Occupational Byssinosis	56	0	0	0	0
38	Occupational talcosis	0	0	0	0	0
39	Occupational coal pneumoconiosis	5	69	455	350	424
40	Occupational Chronic bronchitis	127	165	79	71	1035
41	Occupational bronchial asthma	1	1	0	0	424
42	Lead and lead compound poisoning	181	0	0	7	41
43	Benzene and benzene compound poisoning	821	0	0	1	74

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
44	Mercury and mercury compound poisoning	0	0	0	0	0
45	Manganese poisoning	0	0	0	0	0
46	TNT poisoning	185	0	0	0	0
47	Arsenic poisoning	0	0	0	0	0
48	Pesticide poisoning	16	14	0	0	14
49	Nicotine poisoning	0	46	40	38	15
50	Carbon monoxide poisoning	0	105	0	0	0
51	Cadmium poisoning	0	0	0	0	0
52	Noise-induced hearing loss	6567	2105	2766	2354	4253
53	Occupational disease caused by compressed or decompressed air	0	0	0	0	6
54	Occupational disease caused by whole body vibration	0	225	0	0	3
55	Occupational disease caused by local vibration	44	14	0	0	0
56	Occupational disease caused by ionizing radiation	558	0	0	58	152
57	Occupational cataracts	0	0	0	0	0
58	Occupational oil acne disease	0	0	0	23	0
59	Occupational melanosis	280	142	129	25	89
60	Irritant contact dermatitis caused by Chromium	16	0	0	0	0
61	Occupational Skin disease caused by prolonged exposure to wet and cold environments	55	0	0	9	282
62	Occupational skin disease caused by exposure to natural rubber, chemical additives rubber	0	0	0	0	0
63	Occupational leptospirosis	34	4	5	0	279
64	Occupational tuberculosis	3	5	10	3	0
65	Occupational Hepatitis Virus B	27	40	7	0	69
66	Occupational hepatitis C		1	0	0	1
67	HIV infection by occupational accidents	0	1	1	0	0
68	Mesothelioma	0	0	0	0	0
Total		10,941	3,268	3,802	3,535	7,265

Source: Annual Occupational Health reports reported by VIHEMA

The number of detected occupational cases was increasing by years. The number of occupational disease cases detected in 2019 nationwide was almost twice in comparison with that in 2018 and 2017. The number of occupational hearing loss cases was the highest, followed

by Occupational Silicosis, Occupational Coal pneumoconiosis and Occupational Chronic bronchitis (Table 4.5)

Table 4.6. Numbers of workers under medical expertise/assessment of each occupational disease from 2015-2019

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
	Occupational Silicosis	579	50	38	530	19
2	Occupational Asbestosis	0	0	0	0	0
3	Occupational Byssinosis	0	0	0	0	0
4	Occupational talcosis	0	0	0	0	0
5	Occupational coal pneumoconiosis	0	0	455	250	509*
6	Occupational Chronic bronchitis	3	12	0	1	0
7	Occupational bronchial asthma	0	0	0	0	0
8	Lead and lead compound poisoning	0	0	0	0	0
9	Benzene and benzene compound poisoning	0	0	0	0	0
10	Mercury and mercury compound poisoning	0	0	0	0	0
11	Manganese poisoning	0	0	0	0	0
12	TNT poisoning	139	0	0	0	0
13	Arsenic poisoning	0	0	0	0	0
14	Pesticide poisoning	0	0	0	0	0
15	Nicotine poisoning	0	0	40	0	1
16	Carbon monoxide poisoning	0	57	0	0	0
17	Cadmium poisoning	0	0	0	0	0
18	Noise-induced hearing loss	322	126	209	148	88
19	Occupational disease caused by compressed or decompressed air	0	0	0	0	0
20	Occupational disease caused by whole body vibration	0	0	0	0	0
21	Occupational disease caused by local vibration	0	0	0	0	0
22	Occupational disease caused by ionizing radiation	0	1	1	0	0
23	Occupational cataracts	0	0	0	0	0
24	Occupational oil acne disease	0	0	0	0	0
25	Occupational melanosis	0	0	32	0	0
26	Irritant contact dermatitis caused by Chromium	0	0	0	0	0

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019
27	Occupational Skin disease caused by prolonged exposure to wet and cold environments	0	0	0	0	0
28	Occupational skin disease caused by exposure to natural rubber, chemical additives rubber	0	0	0	0	0
29	Occupational leptospirosis	0	0	0	0	0
30	Occupational tuberculosis	2	5	7	2	7
31	Occupational Hepatitis Virus B	3	4	2	0	0
32	Occupational hepatitis C		1	0	0	0
33	HIV infection by occupational accidents	0	1	1	0	0
34	Mesothelioma	0	0	0	0	0
Total		1,048	256	785	931	624

**This data included 85 OD cases detected in 2018, but in 2019 going under OD assessment/expertise*

Source: Annual Occupational health reports reported by VIHEMA

There are from 8%-26.3% of workers who suffer from occupational diseases going under medical expertise/assessment for getting compensation. The highest number of workers going under medical expertise/assessment for getting compensation was in workers suffering from occupational coal pneumoconiosis (8.1% in average), followed by occupational Silicosis (3.8% in average) and occupational hearing loss (2.9% in average) (Table 4.6)

Table 4.7. Numbers of workers getting compensation for each occupational disease from 2015-2019

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Acc. No. of workers*
	Occupational Silicosis	550	19	38	530	18	21,407
2	Occupational Asbestosis						3
3	Occupational Byssinosis						278
4	Occupational talcosis						
5	Occupational coal pneumoconiosis				250	509	729
6	Occupational Chronic bronchitis				1		121
7	Occupational bronchial asthma						
8	Lead and lead compound poisoning						321
9	Benzene and benzene compound poisoning						2

No	Occupational diseases	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Acc. No. of workers*
10	Mercury and mercury compound poisoning						24
11	Manganese poisoning						
12	TNT poisoning	139					535
13	Arsenic poisoning						
14	Pesticide poisoning						297
15	Nicotine poisoning		1			1	260
16	Carbon monoxide poisoning						
17	Cadmium poisoning						
18	Noise-induced hearing loss	265	60	113	98	60	5,174
19	Occupational disease caused by compressed or decompressed air						
20	Occupational disease caused by whole body vibration						20
21	Occupational disease caused by local vibration						
22	Occupational disease caused by ionizing radiation						15
23	Occupational cataracts						
24	Occupational oil acne disease						
25	Occupational melanosis						633
26	Irritant contact dermatitis caused by Chromium						
27	Occupational Skin disease caused by prolonged exposure to wet and cold environments						
28	Occupational skin disease caused by exposure to natural rubber, chemical additives rubber						
29	Occupational leptospirosis						6
30	Occupational tuberculosis	1	4	1	2	7	91
31	Occupational Hepatitis Virus B		4	1		4	287
32	Occupational hepatitis C						
33	HIV infection by occupational accidents		1				1
34	Mesothelioma						
Total		955	89	153	881	599	30,204

* Accumulative Number of workers getting compensation is counted from the first case of occupational disease until now, 2019

Source: Annual Occupational health reports reported by VIHEMA, MOH

The accumulative number of workers getting compensation for occupational diseases until 2019 is 30,204 cases, in which the silicosis cases are getting the most compensation, account for 70.8%, followed by Noise-induced hearing loss (17.1%), Occupational coal pneumoconiosis (2.4%), Occupational melanosis (2.1%), etc.

Table 4.8. Number of workers suffering from different groups of occupational diseases from 2011-2019

No.	Groups of Occupational diseases	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
1	Group of occupational lung and bronchial diseases	1001	1733	2039	982	1558	567	844	1017	1984	11,725
2	Group of occupational poisonings	128	89	171	130	382	165	40	46	144	1,295
3	Group of ODs caused by physical factors	1762	3040	4145	4638	6611	2344	2766	2412	4,414	32,132
4	Group of occupational skin diseases	445	243	356	653	351	142	129	55	371	2,745
5	Group of ODs caused by micro-biological factors	221	66	761	174	64	49	23	3	349	1,710
	Total number	3,557	5,171	7,472	6,577	8,966	3,267	3,802	3,535	7,265	49,607

Source: Annual Occupational health reports reported by VIHEMA from 2011 to 2019

Vietnam Health and Environment Management Agency (VIHEMA) estimated that annually there are about 1000 – 1500 cases of new occupational diseases. The total number of occupational diseases from 2011 to 2019 is 49,607 cases. The highest rate of occupational disease group is the group of occupational diseases caused by physical factors (64,8%), followed by the group of occupational lung and bronchial diseases (23.6% of total cases), the

Group of occupational skin diseases (5.5%), then, the Group of occupational diseases caused by micro-biological factors (3.4%). The lowest is the Group of occupational poisonings (2.6%),

It is found that the number of occupational diseases is changed significantly year by year (see table 4.4 to 4.8). The reason for that it depends on first the capacities of Provincial Preventive Medicine Centers (now called CDCs) and OH Centers/Hospitals of Industrial Branches/Sectors in OD detection and diagnosis as these organizations reported these data to VHEMA, MOH. The second reason is their target of each year to the types of industry and the coordination between the enterprises and the organization doing OD examination (it means the enterprises agree to do OD examination and they allow them to do that). The capacities of OD examinations also change depending on the personnel doing OD detection and diagnosis (having certificate/license) and the facilities. In recent years, the number of MD specialized in OD and OD clinics are increasing as many courses on OD examination and diagnosis were organized.

4.2.2. Coverage by reporting and compensation schemes and estimated occupational injury and disease

4.2.2.1. Coverage by reporting estimated occupational injury and disease

Table 4.9. Coverage by reporting estimated occupational injury and disease

No.	Years	Estimated Rate of enterprises reporting Occupational injury (%) (1)	Estimated Rate of enterprises organized working environment monitoring (%) (2)	Estimated Rate of employees involved in Occupational disease detection (%) (3)
1	2019	5.9	8.5	8.1
2	2018	6.1	7.1	10.5
3	2017	5.4	8.8	9.8
4	2016	9.5	8.8	6.0
5	2015	6.9	7.1	5.2

(1) Annual Report on situation of occupational accidents and injuries, Occupational Safety Agency, MOLISA

(2) Annual Occupational health reports reported by VIHEMA: number of enterprises taking working environment monitoring/number of enterprises under management by annual reports

(3) Annual Occupational health reports reported by VIHEMA: Number of employees involved in OD detection/estimated number of employees doing hazardous and harmful jobs/occupations (about 3 millions)

According to the Annual Report on situation of occupational accidents and injuries by Occupational Safety Agency, MOLISA, the rate of production establishments/enterprises report occupational accidents and injury is approximately 6.7% in average. So, the number of accidents and injury in fact is much higher (maybe more than 10 times) than the reported one.

The Annual Occupational health reports reported by VIHEMA pointed out the estimated rate of enterprises organized working environment monitoring and employees involved in Occupational disease detection is lower than 10%. So, similar to the number of accidents and injury, the number of employees suffering from occupational diseases in fact is much higher (maybe more than 10 times) than the reported one.

According to experts, the first and foremost reason is that most businesses, especially small and medium enterprises, due to their small scale and small capital, have not really paid attention to investment in ensuring OSH, do not pay adequate attention and care to their employees' health.

Along with that, many employers are not aware of the importance of notification, statistics and reporting. Many business leaders are afraid that letting the authorities know the shortcomings and "incidents" in occupational safety and health, occupational accidents and occupational diseases happening at the enterprises will affect exam results, race, to the reputation, the brand of the business and themselves.

Equally important cause is pointed out as the employer's lack of awareness of complying with the laws. Many employers are aware of the provisions of the law, but due to the many mistakes and shortcomings in the implementation of the labor protection, they often find all possible ways to conceal and negotiate during an occupational accident. compensate the victim or their family.

In addition to the "fault" of businesses, the situation of violating the law on occupational safety and health also comes from the fact that management agencies have not had any solution, legal, not yet drastic in urging and reorganizing businesses within the scope of management.

Moreover, the inspection, examination and handling of occupational accidents are not strict, while the regulations on forms of occupational accident statistics and reports are still cumbersome, difficult to implement, causing anxiety for enterprises when reporting, making statistics and reporting on occupational accidents and diseases

4.2.2.2. Coverage by compensation schemes of occupational injury and disease

Table 4.10. Situation of participating in occupational injury and disease compensation scheme 2010-2015

Indicators	Unit	2010	2011	2012	2013	2014	2015
1. Total of people participating in social insurance	Million	9441.3	10104.5	10431.6	10881	11452.5	12065.4
2. In which number of people participating in OI & OD compensation fund	Million	9439	10102.3	10429.6	10878.6	11450.2	12063
3. the Rate of people participating in OI & OD compensation fund in social insurance	%	99.98	99.98	99.98	99.98	99.98	99.98
4. the Rate of people participating in OI & OD compensation fund among people having work	%	19.1	19.9	20.3	21.1	x	x

Source: The National OSH Profile, MOLISA 2016

*** The situation of using the occupational accident and occupational disease fund:**

In parallel with the payment of social insurance, the number of beneficiaries of social insurance benefits is also increasing, in which the number of people enjoying the occupational accident and occupational disease benefits has steadily increased over the years. The number of people entitled to occupational accidents and diseases (monthly and one time) in 2006 was 35,355 people, in 2007 was 37,086 people (increased 4.9% compared to 2006); in 2010 it was 44,493 people, increasing by 25.85% compared with 2006; in 2011 there were 48,333 people, an increase of 8.63% compared to 2010 and an increase of 36.71% compared to 2006.

From 2008-2013, the Vietnam Social Security settled for an average of 7121 people / year to enjoy the occupational accident and occupational disease benefits, accounting for about 0.73% of the participants. Of which, the number of people entitled to the monthly benefits is 2573 people / year, accounting for 0.027% of the participants and 36.2% of the number of

people suffering from occupational accidents and diseases; the number of people enjoying the one-time benefits is 3906 people / year, accounting for 0.04% of the participants and 54.7% of the number of people suffering from occupational accidents and diseases.

In addition, the Fund also makes monthly payments for victims of occupational accidents and occupational diseases, who are entitled to a cumulative monthly allowance from previous years, as of 2013, 37,502 cases of occupational accidents; 9,320 cases of occupational diseases.

Due to only implementing the benefits for occupational accidents and diseases after workers have stabilized treatment for their injuries; Payment for subsistence vehicle subsidies; very few orthopedic tools, service allowances, convalescence and health rehabilitation after the treatment of injuries and illnesses; not implementing the rewarding regime; There is no re-investment mechanism to prevent occupational accidents and occupational diseases, so it is not effective in sharing risks with enterprises, when occupational accidents happen, the fund has a large balance, the spending rate is only about 11% of the collection.

**Table 4.11. Results of enjoying occupational injury and occupational disease regimes
in 2010-2015**

Indicators	Millions	2010	2011	2012	2013	2014	2015
1. Total Number of new people enjoying in each year	People	6842	7347	7802	7956	6644	6571
Comparing to the number of people participating	%	0.073	0.075	0.073	0.073	0.06	0.05
1.1. Receiving subsidy every month	people	2681	2693	2602	2724	2230	2417
Comparing to the number of people participating	%	0.028	0.027	0.025	0.026	0.02	0.02
Comparing to the number of people suffering from OI & OD	%	39.18	36.65	33.35	34.24	33.56	36.78

Indicators	Millions	2010	2011	2012	2013	2014	2015
1.2. One time subsidy	People	3608	3990	4500	4518	3494	3317
Comparing to the number of people participating	%	0.038	0.039	0.043	0.042	0.03	0.028
Comparing to the number of people suffering from OI & OD	%	52.72	54.31	57.68	56.79	52.59	50.48
1.3. Deaths due to OI & OD	People	554	664	700	714	560	578
Comparing to the number of people participating	%	0,006	0,007	0,007	0,007	0.0049	0.0048
Comparing to the total number of OI & OD	%	8,10	9,04	8,97	8,97	8.43	8.8
2. Total number of Beneficiary receiving monthly until at the end of year	people	27965	30173	32461	34459	51109	54970
Beneficiary of compensation for OI & OD	People	27500	29661	31812	33882	50302	54003
Beneficiary of service allowance	People	465	512	649	577	807	967
3. Total of received subsidies	Billions VND	220	262	342	374	590	542
Comparing to number of payment	%	9,73	9,26	8,43	8,55	4.5	3.7

(Source: Vietnam social Insurance - Calculating the balance of the Fund for occupational accidents and diseases) in the National OSH Profile by MOLISA, 2016

4.3. Legal Compliance Status

4.3.1. Legal compliance status for OSH regulations

In general, the legal compliance status for OSH regulations is better in the formal sector, in the large state and foreign investment companies/enterprises. In the informal sector, e.g. SSEs, craft villages, household business, the OSH regulations usually are not complied or compliance is not adequate.

The annual report of OSH inspection describes the legal compliance status for OSH regulations. The followings are examples of the report of OSH inspection by some years.

In the two years of 2018 and 2019, the Department of Labor Safety, MOLISA organized 18 teams to inspect the compliance with the regulations of the law on occupational safety and health, the quality of group 2 products, inspection of training services on OSH, responding to "Month of action on OSH" at 127 organizations, units and enterprises. Through the inspection, there were 410 recommendations and proposals for sanctioning according to their competence 24 Decisions on sanctioning administrative violations in the field of labor, 02 Decisions on sanctioning administrative violations in the field of standards, metrology and quality products and goods with a total amount of 914.5 million dong. At the same time, revoke the right to use Certificate of inspector for 1 to 3 months of 03 violating inspectors, suspend the Certificate of eligibility to operate training services for 2 to 3.5 months for 04 organizations, units, issue a decision to revoke the Certificate of OSH training for 01 unit and revoke the Certificate of technical inspection for 01 unit.

In addition, in 2019, implementing the inspection for informal sector of 80 households in 06 craft villages in the 06 provinces: Bac Ninh, Hanoi, Dong Nai, Vinh Phuc, Thai Binh and Nam Dinh. According to the approved inspection plan, through the inspection, 371 recommendations were shown. At the same time in coordination with Inspector of MOLISA, to inspect in 29 units operating in technical inspection of occupational safety and occupational safety training. In which, 10/29 units make records of administrative violations, 01 unit requested the Department of Labor Safety and the Department of Labor, War Invalids and Social Affairs of Ho Chi Minh City to revoke the certificate (GCN) for training activities and at the same time set up a judgment. baggage cheating in OSH training activities; coordinated with the State Department of Construction Quality Inspection of the Ministry of Construction

to inspect the work of occupational safety in construction at 05 key projects in Hanoi, HCM City and Khanh Hoa.

The inspection results showed that basically the unit has complied with the provisions of the law on OSH, providing OSH inspection and training services. However, the OSH training service units still have some major violations such as: the contents of the framework program, training materials for groups have not fully updated new legal policies according to regulations. The detailed training program, training documents, list of trainees, test results, test results, and copies of the trainer's eligibility papers have not been properly and fully kept. Technical inspection services on occupational safety were mainly violated such as: not updating enough technical documents about each subject under the inspection scope according to regulations (QCVN 2016, 2017 of the Ministry of Labor, War Invalids and Social Affairs promulgated regulations on inspection).

In addition, violations such as providing personal protective equipment for employees that do not ensure the quality according to the respective national technical standards and regulations; has not appointed a person with professional expertise in accordance with regulations on OSH work, has not developed detailed annual OSH plans; Periodically reporting on OSH work, occupational accidents, OSH inspection and training activities have not been fully implemented.

(Sources: <http://vnniosh.vn/Details/id/31316/Buoc-dau-thuc-hien-co-hieu-qua-chuc-nang-Thanh-tra-chuyen-nganh-an-toan-ve-sinh-lao-dong>)

According to the Annual Report of the inspector of the Labor, Invalids and Social Affairs sector in 2018, it has implemented 6,979 inspections (up 3.1% compared to 2017). Through inspection, issued 41,446 recommendations; 1,076 decisions to sanction administrative violations with a total fine of 32,234 billion VND; discovered 25 officers incorrectly implementing policies and regulations; propose revocation of 01 License to operate overseas Vietnamese workers under the contract and 01 Certificate of eligibility for training of OSH.

In the field of labor, inspecting the compliance of regulations of labor law and social insurance at 102 enterprises in 08 provinces. Through inspection, issued 993 recommendations to request the inspected objects to implement, 15 decisions to sanction administrative violations with a total amount of 340 million VND; Inspection of compliance with regulations of law on labor and social insurance: issued 513 recommendations to request the subjects to correct their mistakes, 02 decisions to sanction administrative violations with the total amount

of 30 million VND. Some main mistakes: The labor contract signed with the employee did not specifically show the rights and obligations of the employee; has not conducted periodic dialogue at the workplace as prescribed by law; the content of the collective labor agreement copied the provisions of the labor law; not arranged for employees to take at least 04 days / month off as prescribed; Social insurance, health insurance and unemployment insurance have not yet been paid to employees' wages under labor contracts with a term of less than 03 months; have not yet paid in full overtime wages for employees as prescribed.

In the field of OSH, inspection of the compliance of the OSH law responded to "Month of action on OSH" at 53 enterprises in mining of minerals as building materials and production of building materials and 09 construction buildings; inspecting the compliance of the law on technical inspection of occupational safety, training of OSH in 28 units. Through the inspection, issued 1,432 recommendations to request units to fix violations, 25 decisions to sanction administrative violations with a total fine of 1,176 billion VND; propose revocation of Certificate of eligibility for training service of OSH from 01 unit.

(Source: the Annual Report of the inspector of the Labor, Invalids and Social Affairs sector in 2018, MOLISA: <http://www.molisa.gov.vn/Pages/tintuc/chitiet.aspx?tintucID=28926>)

*According to the results of the labor inspection campaign in 2015, with the theme "Raising awareness of the labor law in the garment industry" shows some results of implementing occupational safety and health of textile-garment enterprises are as follows:

- Regarding personal protective equipment: The risk-zoning activity indicates violations for the use of personal protection equipment. The inspection results show that 28.29% of enterprises have not equipped personal protective equipment for all employees; 45.39% of enterprises provide inadequate quantity of personal protective equipment for employees as prescribed; 20.39% of enterprises do not keep books to track the distribution of personal protective equipment or make allocation books but do not have the employee's signature; 3.2% of businesses have employees that do not use personal protective equipment for the right job.
- Internal routes and exit doors: The results of risk zoning show that many businesses do not check and maintain emergency exits, do not rehearse to respond to emergency situations: 13,16 % Of enterprises design internal roads not to ensure the prescribed width; 11.18% of enterprises have internal roads still leave obstacles and obstacles; 18.52% of businesses do not have safety warning signs, prohibition signs, instruction signs for people and vehicles; 9.21% of businesses do not inform employees about escape regulations and post them in visible places

for everyone to know and obey; 11.84% enterprises did not have diagrams to guide the escape routes; 9.21% of businesses do not have signboards, signboards indicating emergency exit.

- Electrical risks: The activities of locating the risks showed that 24% of enterprises violated the neutral connection of working equipment: 8.55% of enterprises did not perform the neutral connection of metal shells of machines and electrical equipment. to prevent electricity from touching or connecting but not guaranteed; 9.21% of enterprises have electrical wires that are not on insulating porcelain, installed on metal structures of factories; 22.37% of enterprises do not equip or have insufficient personal protective equipment suitable for electricians; 7.24% of enterprises do not design or install lightning protection systems or not install properly; 18.41% of enterprises do not periodically check the resistance of the factory grounding, and the equipment.

- Working environment at the workplace: 24.34% of enterprises do not measure and check the working environment annually; 9.87% of enterprises did not take measures to improve working conditions and environment.

- Planning and implementing the plan of occupational safety and health: 42.11% of enterprises have not developed annual OSH plans; 13.82% of enterprises develop labor safety plans but do not ensure the prescribed contents; 10.53% of enterprises do not consult employees' representatives when making plans.

- Occupational safety and health training: This include the inspection of occupational safety and health training for all subjects working in the enterprise: 59.21% The employer does not participate in labor safety training or participates inadequately; 40.13% of enterprises have employees working in safety in enterprises that have not been trained in occupational safety and health or have not yet trained enough people according to regulations; 44.74% of enterprises have people who work with strict labor safety requirements who are not trained in safety or participate inadequately; 9.87% of enterprises did not provide training on occupational safety for employees of group IV or trained but not fully; 38.82% of enterprises do not provide training on OSH for apprentices or trainees when they are recruited or are not fully trained.

(Source: The National OSH Profile by MOLISA, 2016)

4.4.Problems concerning OSH and Exposure to Specific Hazards

4.4.1. Problems concerning OSH in all and specific industries:

According to the annual reports of working environment monitoring in all industries, the harmful factors in working environment that are measured and checked, usually are temperature, humidity, air velocity, lighting, dust, noise, vibration, chemicals/toxic gases, microbiological factors (e.g. fungi/mold, hemolytic cocci), radiation and electromagnetic fields. Since July 2016 when the OSH Law was effective, the measurement of psycho-physiological and ergonomic factors (e.g. assessment of physical workload, mental workload and ergonomic factors) are included in the working environment monitoring. Annually, the number of measured samples is about from 500,000 to 900,000 samples and tends to be increasing by years. The number of samples exceeding the permissible exposure limits (PELs) accounts for 6- 10% and tends to be decreasing nowadays. The checked harmful factors with high rate of samples exceeding PELs are radiation, electromagnetic fields, dust, noise and lighting. The annual reports do not reflect working environment pollution in the specific industries (Table 4.11 and Figure 4.3)

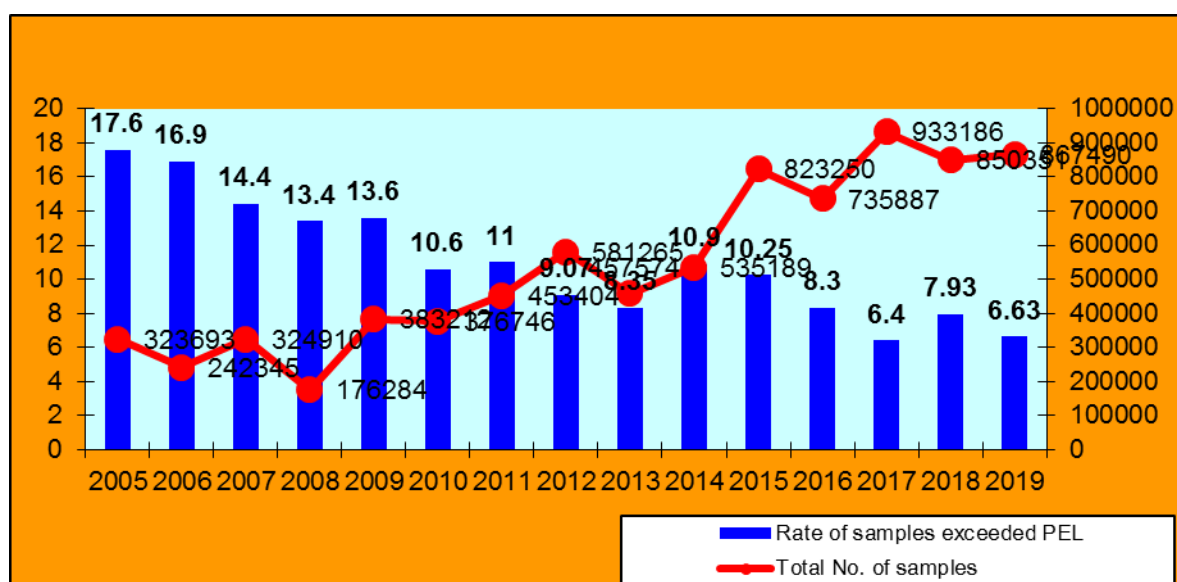


Figure 4.3. Status of exposure to hazardous factors in working environment (2005-2019)

Table 4.12. Results of working environment monitoring from 2010 - 2019

No	Harmful factors	2011		2012		2013		2014		2015		2016		2017		2018		2019	
		(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1	Microclimate	216158	8.96	260139	8.80	203282	7.97	270764	8.9	375258	9.06	333623	6.58	537186	3.58	347420	5.62	387954	4.61
2	Dust	50115	6.3	69108	5.97	46677	5.55	49815	18.7	90984	3.67	79674	2.35	66482	3.53	120648	1.84	92017	2.71
3	Noise	64617	20.3	76123	16.26	66025	13.15	72771	17.5	109257	17.46	99441	14.7	98633	13.10	109430	13.23	113088	12.6
4	Lighting	72233	15.2	84427	10.43	69874	10.72	82304	17.4	122558	15.84	110233	15.9	112474	18.67	113904	18.16	122239	14.77
5	Toxic gas	36053	5.64	46687	4.07	46895	2.89	38258	9.4	93772	5.5	75435	5.13	70860	4.12	89801	3.72	108579	3.47
6	Vibration	4942	5.36	10521	3.74	8093	15.77	10240	10.7	723	3.24	13854	5.45	15108	13.36	19414	3.37	13118	4.86
7	Radiation, electromagnetic fields	8199	8.34	20802	6.49	16292	3.19	9447	19.9	21226	12.77	14839	6.17	6510	5.55	2988	5.29	7565	4.01
8	Other factor	1487	14.1	10458	5.33	436	25.23	1590	28.7	2965	15.04	8788	15.9	10271	8.84	18289	12.49	22930	11.08
	Total	453,804	10.99	581,265	9.07	457,574	8.35	535,189	10.99	823,250	10.25	735,887	8.3	933,186	6.41	850,351	7.93	867,490	6.63

Note: (1): Sample size; (2): Rate of samples exceeding PELs

(Source: Annual Report on OH Activities by VHEMA, MOH)

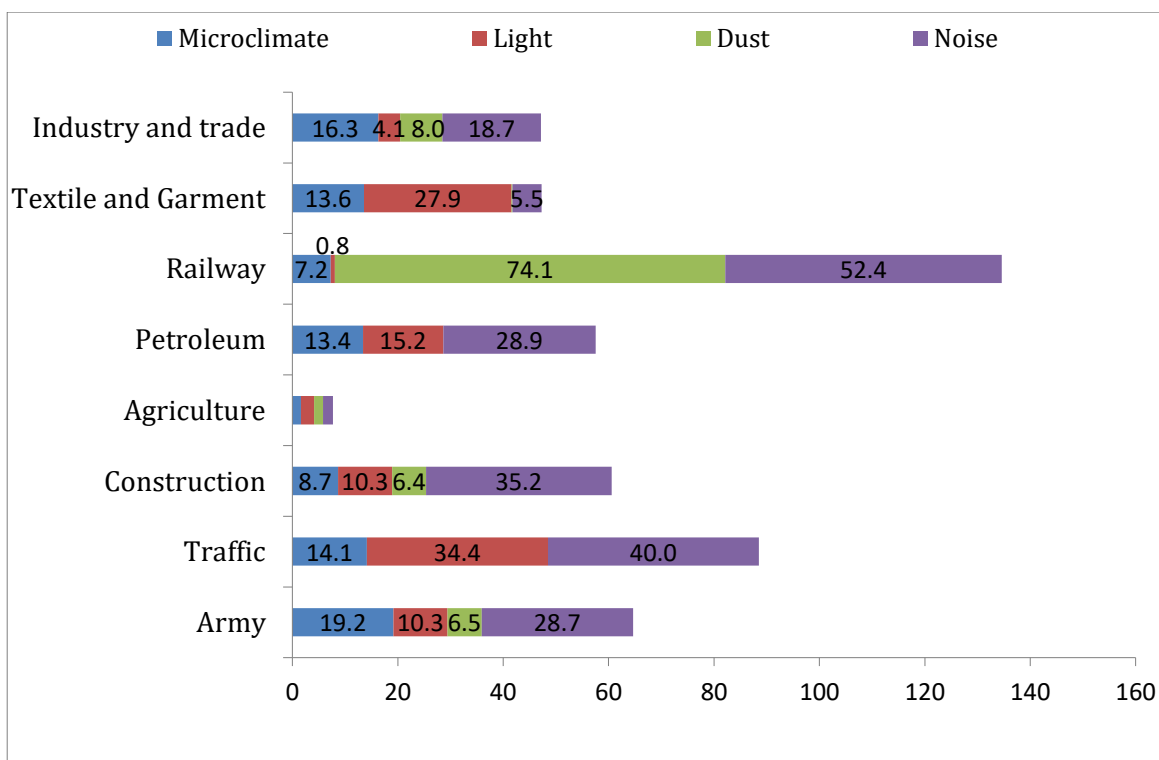
In 2019, there were 6,288 production establishments/enterprises organized the working environment monitoring with the total number of checked samples was 847,490 samples. The most checked working environment factors are: microclimate (temperature, humidity, wind speed) 387,594 samples (accounted for 44.72%); Physical factors include: lighting 122,239 samples (14.09%); noise 113,088 samples (13.06%); toxic gas vapors: 108,579 samples (12.52%); Dust factor 92,017 samples (including total dust, respiratory dust, silica dust and other dusts) accounted for 10.6%, the rest was 5% of other factors

The total number of working environment monitoring samples that do not meet PELs/hygiene standards was 57,556 samples, accounting for 6.6% (decreased by 1.3% at the same period in 2018). Samples with high rates that did not meet the hygiene standards include: lighting (14.8%); noise (12.6%); microclimate (4.6%). The rate of dust samples exceeding PELs or hygiene standards accounted for 2.7% .

The results of working environment monitoring in enterprises of different specific industries were showed in the figure 4.4, according to the annual report on occupational health activities from Health Centers/Hospitals belonging to Industrial Branches, Sectors/Ministries. These results indicated that the noise pollution occurred in almost industries, especially in railway, transportation, construction, petroleum sectors and army enterprises (52.4%, 40%, 28.9% and 28.7%, respectively of measured samples exceeding PELs). Dust pollution seriously happened in railway sector with 74.1% of measured samples exceeding PELs. Lack of lighting seriously happened in textile-garment and transportation sectors (27.9% and 34.4%, respectively of measured sample did not meet hygiene standards) (Figure 4.4)

The results of microbiological monitoring of working environmental air at provincial and central hospitals for the period 2010-2014 (as investigated by NIOEH) are presented in the table 4.12. It showed that the rate of monitoring samples exceeding TLV were decreasing from 2010 to 2014, but still comprised high proportions (51.7-93.4%) (Table 4.13)

Figure 4.4. Percentage of physical factor samples exceeding the permissible exposure limits (PELs) by sectors in 2014



Source: National Occupational Health Profile, NIOEH 2015

Table 4.13. The data of microbiological monitoring of environmental air at provincial and central hospitals for the period 2010-2014

Unit: Rate of samples (%)

Indexes	2010		2011		2012		2013		2014	
	Met TLV	Exceeded TLV	Met TLV	Exceeded TLV	Met TLV	Exceeded TLV	Met TLV	Exceeded TLV	Met TLV	Exceeded TLV
Rate of samples	7.64	92.36	20.00	80.0	20.10	79.9	48.30	51.70	36.30	63.70
Total of samples	877		522		194		145		193	
Number of hospitals monitored	54 Hospitals		29 Hospitals		8 Hospitals		5 Hospitals		7 Hospitals	

4.4.2. Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries (Source: The National OSH Profile by MOLISA, 2016)

1. Mineral exploitation: Mining is one of the leading industries with many potential risks of unsafely in the industrial sector.

Vietnam Coal - Mineral Industries Group (TKV) (2014) reported:

- Total number of employees: 121,991 people;
- Direct employees: 108,780 people;
- Employees working with strict requirements on OSH: 92,270 people;
- OSH officers: 13,820 people;
- OSH workers: 7,825 people.
- The main danger factors for pit coal mining: The furnace collapsed; Gas and coal dust explosion; Asphyxiation; The water platform; Risk of electric shock; Risks caused by equipment operation (rollers, wagons, rakes, conveyors ...); Risk of slipping; etc.
- The main danger factors for open coal mining and Common hazards of incidents and accidents in open-cast mining: Floor erosion or the whole bank system; Land erosion; Inundation of mines (mine bottom area with active equipment); Electrical hazard; The risk of operating and repairing equipment (cars, excavators, drills, wiper ...); Risk of slipping; Other hazards (Water platforms; asphyxiation ...).
- Working environment monitoring: Total samples for working environment (2014): 22,686 samples, in which number of samples exceeding PELs: 1,345 samples (accounted 5.9%), including humidity (28% samples), temperature (2 3.2% samples), wind speed (2 1.3% samples), dust (10.9%), noise (8.5%), toxic gas (4.4%)
- Situation of occupational accidents, occupational diseases:
 - + In 5 years from 2010 to 2015, the units under TKV had 2526 cases of occupational accidents and 2579 workers were involved in occupational accidents. The number of fatal occupational accidents was 147, causing 172 deaths. The main cause of fatal occupational accidents in the pit production sector is kiln collapse, electromechanical, mining transportation, gas asphyxiation, gas fires, water platforms and blasting. For the open-cast mining sector, deadly

occupational accidents mainly occurred in the fields of repair, transportation, loading and unloading, landfill, drilling and blasting.

+ For occupational diseases; As of June 2015, the total number of people suffering from occupational diseases was 1,956 people, mainly workers with pneumoconiosis compared to 1866 cases in 2010. That proved that working conditions have been improved, and adequate means of labor protection have been brought into play. Combined with the regular inspection and supervision of related departments and the increasing awareness of employees, the number of workers suffering from occupational diseases has decreased significantly.

2. Chemical Industry:

The workforce in chemical production and use is about 5 million people, most concentrated in areas such as the chemical industry, the oil and gas industry, the defense industry, the coal industry and the mineral industry.

Vietnam National Chemical Group (2014):

- Number of enterprises (Vietnam Chemical Group enterprises account for over 50% of the charter capital): 28 enterprises;

- Total number of employees: 27,130 people;

- Employees working in heavy, hazardous or dangerous conditions: 15,120 people;

- Officer of occupational safety and health: 323 people;

- OSH workers: 2,453 people.

*Hazardous factors associated with chemical activities include:

- The risk of chemical incidents: Leaks, fire and explosion can cause catastrophic fire to humans and the ecological environment;

- There is a great risk of using chemicals for improper purposes and improper techniques, causing accidents and chemical poisoning;

- The risk of hazardous chemicals appearing more in consumer products (food, medicine, cosmetics ...) affecting human health.

*The situation of occupational accidents and occupational disease

No.	Occupational accidents	Unit	Number						
			2010	2011	2012	2013	2014	2015	Tổng
1	Number of OAs	case	73	64	39	39	54	49	318

2	NO. of people getting OAs	people	73	65	39	39	54	50	320
3	Number of fatal OAs	case	04	05	0	02	03	2	16
4	Number of deaths	people	04	05	0	02	03	2	16

(Source: Reported by Vietnam Chemical Group)

In the 5 years from 2010 to 2015, units under the Vietnam Chemical Group had 318 cases of occupational accidents causing 320 employees to be involved. The number of fatal occupational accidents was 16, causing 16 deaths.

3. Mechanical Engineering – Metallurgy Industry:

Vietnam Steel Corporation:

- Total number of employees: 8,500 people;
- Direct employees: 6,937 people;
- Employees working with strict requirements on occupational safety and health: 4,674 people;
- Officer of occupational safety and health: 42 people;
- OSH workers: 893 people.

****Dangerous and hazardous factors:*** Common causes of occupational accidents:

- In cold processing - assembly - repair:
 - + Due to the impact of hand tools to the employee (employee) or careless use of tools; clamping details are not careful, not technically correct; equipment layout is not in accordance with specifications;
 - + Machine tools with unstable structure, lack of safety mechanisms;
 - + Due to working posture, lack of safety procedures or shortcut process; grinding wheel is broken, grinding object is shot at people, etc.
- In mechanical processing: danger is caused by splashes of lathe chips, splashes;
- In metal cutting: Electric shock (electric welding), Heat burns, Fire and explosion, Toxic gas and dust.
- In pressure machining: Heat burns caused by rolling, free forging or volume stamping are usually processed in a hot state; because the forge is hot at a high temperature;

- + Throwing tools: hammer handle is not tight or clamps are not tight, causing forging object to fall off; Due to the incorrect placement of the forge on the anvil, it is easy to be thrown out when using the hammer.
- + Expand the mold by clamping the work piece and adjusting the mold when stamping on the machine is incorrect.
- In casting: Heat radiation, ultraviolet rays; Metal splashing; Injury in cleaning the system of pouring and tightening on the casting ...
- In steel production: Plant for making blast furnace iron, Risk of dust and drive system for fuel preparation area, feeding and feeding into blast furnace; Risk of slag explosion, liquid iron explosion, heat radiation in the area where slag discharge, liquid iron discharge; Coal gas leak leads to gas explosion, coal gas poisoning to employees at the coal gas storage and use system; Poisoning coal gas, dust or falling high in the working area atop the blast furnace.
- + Steel furnace for electric furnace: Exploding the acetylene gas cylinders used for scrap steel sand in the material preparation area; Spill liquid iron out of tanks, splash liquid iron, blasting slag ... at the system of transporting and supplying liquid iron into the mixing furnace, steel furnace; Electric shock at electric furnace transformer area; Exploding, splashing liquid slag or liquid steel, dust, exhaust gas, heat radiation at the area where liquid slag and liquid steel are discharged from electric arc furnaces; Incidents from lifting cranes transporting scrap and liquid steel; Explosion of acetylene gas cut billets, burns due to contact with hot billets, heat radiation in the area of continuous casting machines.
- + Steel rolling mill: Risk of falling steel billets, crashing people, crane lifting and transporting billets in the billet storage area; Coal gas leak leads to gas explosion, coal gas poisoning to employees in the coal gasification furnace area to provide coal gas for burning rolling billets; Risk of rolling device actuator; negligence in the process of maintenance and repair of the rolling machine, rolling steel splashes from the steel rolling axis, broken drive shaft coupling... at the steel rolling machine area;
- + The risk of collapse of bundles of steel products, from the incident of crane lifting transporting rolled steel products (bundles of steel bars or coils).

****Occupational accidents and diseases:***

According to data on occupational accidents of the Ministry of Labor, Invalids and Social Affairs, the number of fatal occupational accidents in the field of mechanical

engineering in 2010 - 2014 and 2015-2019 accounts for from 1.81% to 7.76% and 5.9% to 9.01%, respectively of the number of fatal occupational accidents. The number of deaths due to occupational accidents in the field of mechanical engineering accounts for from 1.65% to 6.82% and 5.6% to 9.32%, respectively of the total number of deaths caused by occupational accidents.

In the Vietnam Steel Corporation, in the five years from 2010 to 2014, there were 142 fatal occupational accidents, causing 153 deaths. The main cause leads to accidents in the field of mechanics - metallurgy due to slag explosion, falling, rolling steel bar crashing into human legs, asphyxiation due to toxic gas, burns ...In addition, most of employees were subjective compliance and did not comply completely safety regulations.

There is no comprehensive data on occupational diseases in the field of mechanics - metallurgy. In the Vietnam Steel Corporation, as of June 2015, the total number of people suffering from occupational diseases was 144 people.

4. Construction industry

Total number of enterprises operating in this industry (construction, production of building materials, construction consultancy and real estate) according to the report of the Ministry of Construction and the General Statistics Office as of the year 2014 includes 72,190 enterprises.

By December 2014, enterprises under the Ministry of Construction:

- Total number of employees: 187,470 people;
- Direct employees: 166,634 people;
- Employees working with strict requirements on occupational safety and health: 36,350 people;
- Officer of occupational safety and health: 2,320 people.

Working conditions in construction have unique characteristics, outdoor constructions, in different geographical regions. Employees always work outdoors, in natural environmental conditions such as hot weather, erratic rain and wind, in a dangerous state such as overhead, deep pits, underground tunnels, vertical walls and in a restrictive, uncomfortable position, temporary accommodation, unsatisfactory labor hygiene, environmental pollution ... especially works stretching along the route, temporary accommodation and accommodation must be changed frequently.

Total samples for working environment monitoring (2014) were 20,268 samples in which 2,360 samples (mainly factors of temperature, dust, and noise) did not meet hygiene standards.

***The situation of occupational accidents and occupational diseases**

+ According to the announcement of the Ministry of Labor, Invalids and Social Affairs every year, in the construction sector: On average, more than 800 occupational accidents cases / year (accounting for about 25% of the total number of cases); the number of occupational accidents with deaths is more than 140 people / year (accounting for about 26% of the total number of cases with deaths); an average of more than 170 deaths / year.

+ Units under the Ministry: On average about 150 occupational accidents / year with 150 victims, the average number of deaths is about 13 cases / year, the average number of deaths is 15 people / year. In fact, the situation of occupational accidents occurring in small and medium enterprises has not been fully reported and statistically reported.

The main cause of occupational accidents occurs: fall from height, electric shock, falling materials, crushing, falling, etc.

+ *Occupational diseases in construction*

According to the survey results of INT / 95 / M10 / DAN conducted by NILP, common occupational diseases in the construction industry include: silicosis, occupational deafness, occupational skin disease, occupational diseases due to vibration and lead poisonings. The proportion of people suffering from silicosis is the highest (in building materials production alone, accounting for 33.41% of the total number of people identified with this disease in the country).

Employees in the construction industry have very high symptoms of fatigue and sickness and often suffer from many other common diseases such as gastrointestinal disease, ear, nose and throat disease, respiratory disease, eye disease, musculoskeletal disease, skin diseases ...

5. Oil and gas Industry

Vietnam National Oil and Gas Group (PVN)

- Total number of employees: 55,496 people;

- Employees in jobs with strict requirements on OSH: accounting for 44% of the employees (about 24,418 people);

- Regarding the training and retraining on OSH work: in 2014, the entire oil and gas industry organized training courses for more than 80,000 people, of which more than 50% were retrained.

*** Dangerous factors**

- Oil and gas is a specific industry, most of the harmful factors for employees' health are present such as microclimate, noise, vibration, radiation, radiation, dust, toxic chemicals ...

- Activities in the oil and gas industry are at high risk and in many cases due to the requirement of work to carry out many activities on the works at the same time, so the risks are very great.

These risk factors include:

- For offshore drilling and exploitation of oil and gas: oil and gas eruption, fire, explosion, storm, collision, crash at sea, helicopter accident, person falling into the sea, chemical spill, oil spill.
- For offshore oil and gas transportation and processing: fire, explosion, oil and gas leak, collision, crash, oil spill, storm.
- For onshore oil and gas work operation: fire, explosion, oil and gas leak, toxic gas leak, storm.
- For construction and installation of oil and gas projects: lifting, cranes, scaffolding, confined spaces, electricity, hand tools, radiation, contact of energy sources, welding, cutting, working at height, digging , Warehouse.
- For maintenance and repair of oil and gas projects: lifting, cranes, scaffolding, confined spaces, electricity, hand tools, radiation, contact of energy sources, welding, cutting, working overhead, excavation, warehouse.

***Working environment monitoring:** Total samples for working environment (2014) were 25,804 samples, in which 1,734 samples (6.72%) did not meet hygiene standards (such as microclimate and noise)

***Situation of occupational accidents, occupational diseases and causes**

Data on occupational accidents in the units of Vietnam Oil and Gas Group in the period 2010-2015 are as follows:

No.	Indicators	Unit	Years						
			2010	2011	2012	2013	2014	2015	Total
1	No. of OAs	cases	29	37	39	38	21	32	196

2	No. of people getting OAs	people	32	47	37	40	23	32	211
3	No. of fatal OAs	cases	1	1	2	2	0	2	8
4	No. of deaths	people	1	1	2	2	0	2	8

(Source: Vietnam Oil and Gas Group Report)

***The main cause of occupational accidents:**

- The factors of the offshore working environment: The ground is undulating in turbulent days, slippery ground on the drilling floor, special heavy equipment, high positions, and rockiness are the direct risks. injuries and accidents such as falling into the sea, falls, crashes, and stamping. Exposure to high noise, constant vibration, isolated working conditions, shift changes causing circadian rhythm disturbances with heavy work pressure are factors causing occupational accidents for workers in the oil and gas industry.
- Onshore working environment factors: frequently working in environments with high risk of fire and explosion, exposure to equipment operating under complicated procedures are the causes of occupational accidents for employees working onshore.

***Occupational diseases:** As of June 2015, the total number of people suffering from occupational diseases was 500 people, of which 499 workers suffered from occupational deafness and 01 worker with occupational tuberculosis.

6. Electricity industry

Vietnam Electricity (EVN) is a corporation mainly assigned to carry out the main business lines of production, transmission, distribution and trading in electricity; direct and operate the system of production, transmission, distribution and distribution of electricity in the national electricity system; import and export of electricity; investing and managing investment capital of power projects; management, operation, repair, maintenance, overhaul, renovation and upgrading of electrical, mechanical, control, and automation equipment of production, transmission and distribution lines of electricity, electrical works; electrical experiment.

- Total number of employees by June 2015: 106,420 people;
- Total number of direct employees: 71,314 people;

- Employees working with strict requirements on occupational safety and health: 23,231 people.

- Officer of occupational safety and health: 1,971 people;

- OSH workers: 6,395 people

***Dangerous and hazardous factors**

The main dangerous factors causing unsafety to employees in the electricity industry are electric shock and high falls, especially with power repair and installation.

In addition, employees working in factories also face other dangerous factors such as: transmission factors, motion; heat burns, heat radiation; asphyxiant smoke, asphyxiation gas; chemical poisoning ...

***Situation of occupational accidents and causes**

In the 5 years from 2010 to 2015, EVN had 135 occupational accidents cases, 145 people involved in occupational accidents, 44 people dying from occupational accidents.

The main cause of the occupational accident was that the employee has not followed the proper working process, at the same time the management of the staff at the site has not followed the occupational safety process, the sense of law observance. , compliance with the regulations on labor discipline, procedures and standards on occupational safety and health and fire protection is not high, the inspection, supervision and handling of violations at the scene are not drastic and ineffective.

***Situation of occupational diseases and causes**

By the end of June 2015, the total number of people suffering from occupational diseases was 45 people, mainly workers with pneumoconiosis and occupational deafness.

8. Textile and Footwear Industry

a) General information

By the end of 2014, there were more than 10,000 enterprises operating in the textile and footwear industry nationwide. This is the main export sector of Vietnam in recent years. The workforce in the garment and footwear industry is very large, attracting more than 2.5 million workers; accounting for about 25% of the employment of the industrial sector. The labors of this industry are mostly unskilled workers with low qualifications; their spirit and sense of

observing the labor discipline in many places are not good, requiring further strengthening of the work of occupational safety and health.

Number of enterprises and employees in Textile and Footwear Industry

		2010	2011	2012	2013	2014
1	Total number of enterprises	7.150	8.430	8.752	9.176	10.125
2	Total number of employees	1.771.333	2.000.268	2.035.405	2.260.893	2.518.433

Source: General Statistics Office, Annual Enterprises Census

b) Working environment and occupational risks

Textile and garment - leather and footwear industry attracts a large amount of labor. There are many risks of occupational and work-related diseases as well as labor safety. Sewing workers have to contact and inhale a variety of jute fibers, spikes, cotton ..., if they are not equipped with masks during the production process, their risk of contracting cotton dust is very high. Besides this disease, the rate of garment workers suffering from sinus infections, allergic rhinitis, asthma, and occupational chronic bronchitis is also very high.

In addition, the characteristic of the garment and footwear industry is that the working environment is affected by factors such as dust, noise, light and the potential for fire and explosion. Therefore, occupational safety and health for employees (employees) need to be focused on by business owners.

*According to the results of the labor inspection campaign in 2015, with the theme "Raising awareness of the labor law in the garment industry" shows some results of implementing occupational safety and health of textile-garment enterprises are as follows:

- Regarding personal protective equipment: The risk-zoning activity indicates violations for the use of personal protection equipment. The inspection results show that 28.29% of enterprises have not equipped personal protective equipment for all employees; 45.39% of enterprises provide inadequate quantity of personal protective equipment for employees as prescribed; 20.39% of enterprises do not keep books to track the distribution of personal protective

equipment or make allocation books but do not have the employee's signature; 3.2% of businesses have employees that do not use personal protective equipment for the right job.

- Internal routes and exit doors: The results of risk zoning show that many businesses do not check and maintain emergency exits, do not rehearse to respond to emergency situations:

13,16 % Of enterprises design internal roads not to ensure the prescribed width; 11.18% of enterprises have internal roads still leave obstacles and obstacles; 18.52% of businesses do not have safety warning signs, prohibition signs, instruction signs for people and vehicles; 9.21% of businesses do not inform employees about escape regulations and post them in visible places for everyone to know and obey; 11.84% enterprises did not have diagrams to guide the escape routes; 9.21% of businesses do not have signboards, signboards indicating emergency exit.

- Electrical risks: The activities of locating the risks showed that 24% of enterprises violated the neutral connection of working equipment: 8.55% of enterprises did not perform the neutral connection of metal shells of machines and electrical equipment. to prevent electricity from touching or connecting but not guaranteed; 9.21% of enterprises have electrical wires that are not on insulating porcelain, installed on metal structures of factories; 22.37% of enterprises do not equip or have insufficient personal protective equipment suitable for electricians; 7.24% of enterprises do not design or install lightning protection systems or not install properly; 18.41% of enterprises do not periodically check the resistance of the factory grounding, and the equipment.

- Working environment at the workplace: 24.34% of enterprises do not measure and check the working environment annually; 9.87% of enterprises did not take measures to improve working conditions and environment.

- Planning and implementing the plan of occupational safety and health: 42.11% of enterprises have not developed annual OSH plans; 13.82% of enterprises develop labor safety plans but do not ensure the prescribed contents; 10.53% of enterprises do not consult employees' representatives when making plans.

- Occupational safety and health training: This include the inspection of occupational safety and health training for all subjects working in the enterprise: 59.21% of employers did not participate in work safety training or participated inadequately; 40.13% of enterprises having occupational safety officers who were not trained in occupational safety and health or did not provide training to enough number of people according to regulations; 44.74% of enterprises

having people who work with strict work safety requirements who were not trained in safety or participated inadequately; 9.87% of enterprises did not provide training on occupational safety for employees of group IV or trained but not fully; 38.82% of enterprises did not provide training on OSH for apprentices or trainees when they were recruited or were not fully trained.

c) The situation of occupational accidents and occupational diseases

There are no complete statistics on the situation of occupational accidents and diseases in this industry. However, according to the survey data on 1,000 garment workers aged 25-35, at 3 enterprises in Binh Duong, Ho Chi Minh City and Dong Nai by the Institute of Public Health in Ho Chi Minh City, up to 93% of workers suffer from fatigue after working, of which 47% are completely tired; 16.7% had severe headaches and headaches; 15.1% were exhausted; more than 80% of muscle and joint pain in the waist, neck and shoulders ...

8. Electronic industry

a) General information

In 2017, there were about 610 enterprises in the field of electrical - electronic components (component manufacturing enterprises: accounting for 52.28%).

Number of employees: 500,000 employees

Export turnover: more than 70 billion USD. (Source: Ministry of Industry and Trade, 2017)

Major corporations: Samsung, Foxconn, LG, Panasonic, Intel, Electronics, Nokia, etc.

Samsung companies have invested 2.5 billion USD in BacNinh province and 2 billion USD in Thai Nguyen province with more than 100,000 employees

b) Working environment and occupational risks

In electronic industry, many chemicals are used in different production process. The common chemicals used in electronic industry are Acid (inorganic and organic) that is commonly used in cleaning, corrosion, plating and extraction ... in liquid or powder form; Alkaline (Base) that is used mainly for cleaning, scouring; Frozen gas that means "super cooled", stored in a liquid form under high pressure, used in the wafer fabrication process; Some are "carrier gases", which carry additives into the furnace chamber (Argon and deuterium); Additives that are alloys in solid (e.g. aluminum, antimony and arsenic, Bo and phosphorus), liquid, or gaseous form, and are used to make chips; Metals are used and exist in many forms such as bulk solids, powders and liquid solutions, suspended in gaseous form, and

generate some as a vapor when heated and generate dust when mechanical processing such as drilling, cutting, turning ... Oxidants are highly reactive chemicals that can be used to clean or corrode metal surfaces; Many types of resins: resins, epoxy, glues, adhesives, paints, waxes, neoprene, synthetic fibers, and others, that are organic polymeric compounds, complex chemicals and contains the most toxic ingredients,

In addition, employees in electronic industry are working in uncomfortable postures (long lasting sitting or standing), with repetitive movements of hand and fingers and very small size of objects to be observed and in long time of concentration, etc. These working conditions cause mental strain and fatigues to employees.

The followings are the results of working environment monitoring in 90 electronic enterprises with 225,674 employees in 2016-2017. The results showed that the number of samples exceeding the hygienic standards accounted a small percentage in almost harmful factors.

For the psycho-physiological and ergonomic factors, in some workplaces, it required great physical exertion such as Buffing (grinding products by hand), Packing (Packing products). The physical workload was at 2/6 or 3/6 levels (51%). At the workplaces of manufacturing electronic components and repairing small components, employees need to manipulate and observe the objects with the size $\leq 1\text{mm}$. This work is the high precision work, causing strain on eyes. In the bonded inspection, product assembling and testing, employees are doing repetitive works with time interval less than 20 seconds. The time of observation and paying close attention on the works accounted for more than 76% of total time of work shift. Employees in electronic industry usually work in long lasting standing or sitting postures that last in all work shifts. The head bow angle was 25-45 degree that did not guarantee optimal viewing angle causing neck pain. Many positions, distance from eye to objects was 20 - 30cm, causing visual stress and eye diseases

Workshop	Temperature °C			Humidity (%)			Air velocity m/s		
	No. of samples	Range	No. of samples exceeding Hygiene Standards	No. of samples	Range	No. of samples exceeding Hygiene Standards	No. of samples	Range	No. of samples exceeding Hygiene Standards

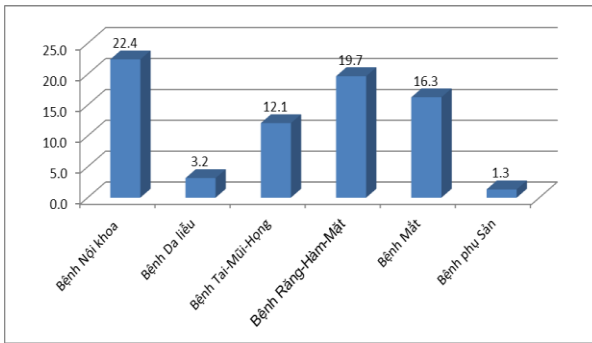
Producing	1,127	22.1 – 33.9	56	1,127	56.2– 78.6	0	1,127	0.11 - 1.78	72
Assembling	1,600	23.4 – 32.7	42	1,600	60.5– 65.4	0	1,600	0.07– 0.41	66
Completing	900	24.6 – 32.5	25	900	60.3– 65.5	0	900	0.08- 0.32	34
	<i>QCVN 26 : 18 – 32° C</i>			<i>QCVN 26 : 40 – 80%</i>			<i>QCVN 26 : 0,2 – 1.5m/s</i>		
	Lighting (Lux)			Noise (dBA)			Electro-magnetic field at high frequency (v/m)		
Producing	4,137	113 -914	21	5,432	77.4 - 85.9	30	325	0.85 -2.30	0
Assembling	5,932	62 -1.782	54	3,630	67.1– 83.8	0	460	1.1 - 4.20	0
Completing	4,048	305 - 872	27	3,048	62.7 - 80.3	0	350	0.92 - 2.60	0
	<i>QCVN 22 : >300 ; 750lux</i>			<i>QCVN 24 : 85dBA</i>			<i>QCVN 21 : 614v/m</i>		
	CO₂ (mg/m³)			CO (mg/m³)			SO₂ (mg/m³)		
Producing	7.178	736 - 1237	0	3.120	0,1 – 3,6	0	3.120	< 0,26	0
Assembling	10.969	923– 3.514	198	5.642	0,08 – 2,1	0	5.642	< 0,26	0
Completing	3.360	592 - 1348	0	1.786	0,03 - 0,42	0	1.786	< 0,26	0
	<i>TCVS 3733 :1.800mg/m³</i>			<i>TCVS 3733 :40 mg/m³</i>			<i>TCVS 3733 :10mg/m³</i>		
	Toluene (mg/m³)			VOCs (mg/m³)			Total hydrocarbon (mg/m³)		
Producing	567	0,567– 10,754	0	5.320	0,761- 45,98	0	5.320	0,462- 12,41	0
Assembling	758	0,432 – 2,651	0	8.416	0,324- 3,162	0	8.416	0,056- 3,030	0
Completing	493	0,329 – 0,753	0	2.360	0,242- 1,586	0	2.360	0,038- 0,641	0
	<i>TCVS 3733 :300mg/m³</i>			-			-		
	Tin oxide (mg/m³)			Titanium (mg/m³)			Crome (VI) (mg/m³)		
Producing	97	0,0007 - 0,0011		130	0,0008 - 0,0049		166	0,0003 - 0,0072	

Assembling	320	0,0008- 0,0055			-			-	
	TCVS 3733 : 2 mg/m³		TCVS 3733 :10mg/m³			-			

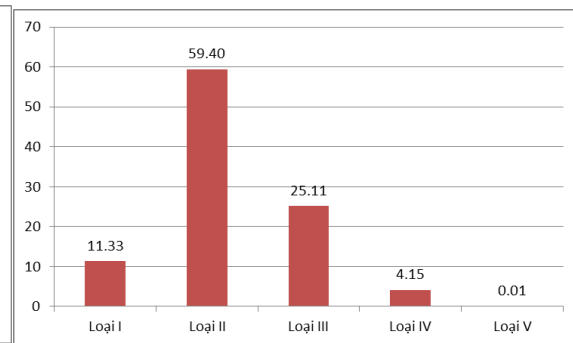
c) The situation of occupational accidents and occupational diseases

There is no data on occupational accidents and occupational diseases among electronic employees.

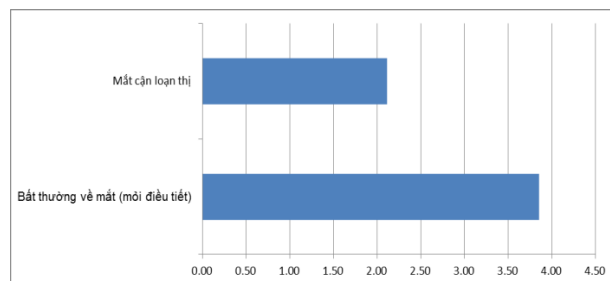
The followings are the results of periodic health examination for electronic employees taken by NIOEH. Almost employees had health categories I and II (very good and good health, respectively), accounted for 70.73%. The health categories IV and V (bad and very bad health, respectively) accounted for 4.16%. The common diseases are internal diseases (22.4%), maxillo-facial-dental diseases (19.7), eye diseases (16.3%). Regards eye problems, more than 2% of employees suffer from near sighted and astigmatism, and nearly 4% was eye abnormalities (difficult eye regulation)



The common diseases of electronic workers



Health categories of electronic workers

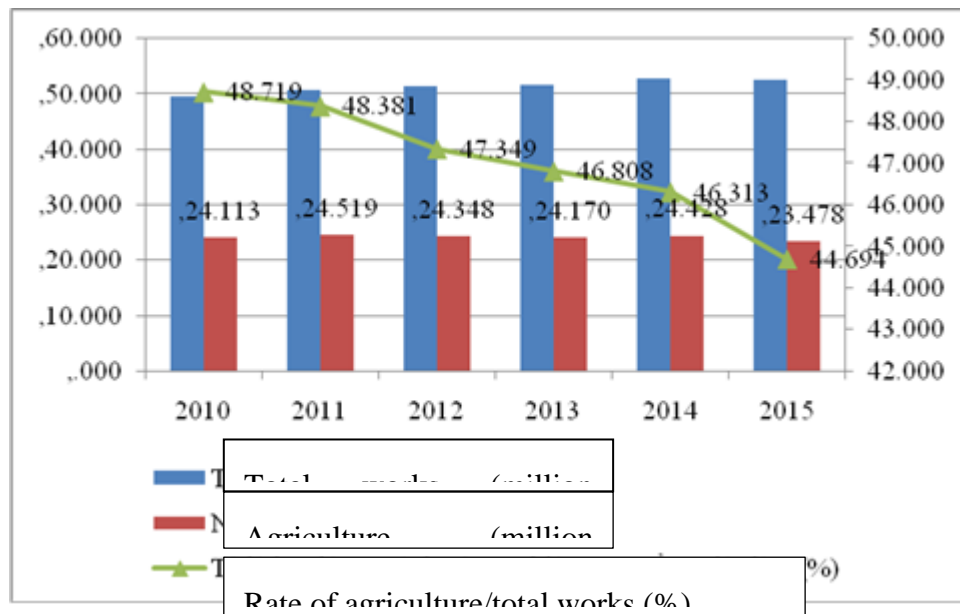


Eye problems among electronic workers

9. Agriculture

a) General information

Agriculture, forestry and fisheries (hereinafter referred to as agriculture) is the industry that uses a huge amount of labor. According to the General Statistics Office, by the second quarter of 2015, the number of employees working in the agriculture, forestry and fishery sector was 23.48 million people, accounting for 44.7% of the total number of working people in the country.



b) Current working environment and occupational risks

Agriculture is considered as one of the industries with many potential risks of occupational accidents and work-related diseases, ranking third after the mining and construction industry, when using machines, poisoning pesticides and other chemicals, etc.

The risk of accident when using machinery and equipment as well as the risk from the transportation, preparation, use and preservation of unsafe chemicals and plant protection chemicals increase the working environment pollution, adversely affect the safety and health of employees.

Jobs in the agricultural industry have many potentially harmful factors:

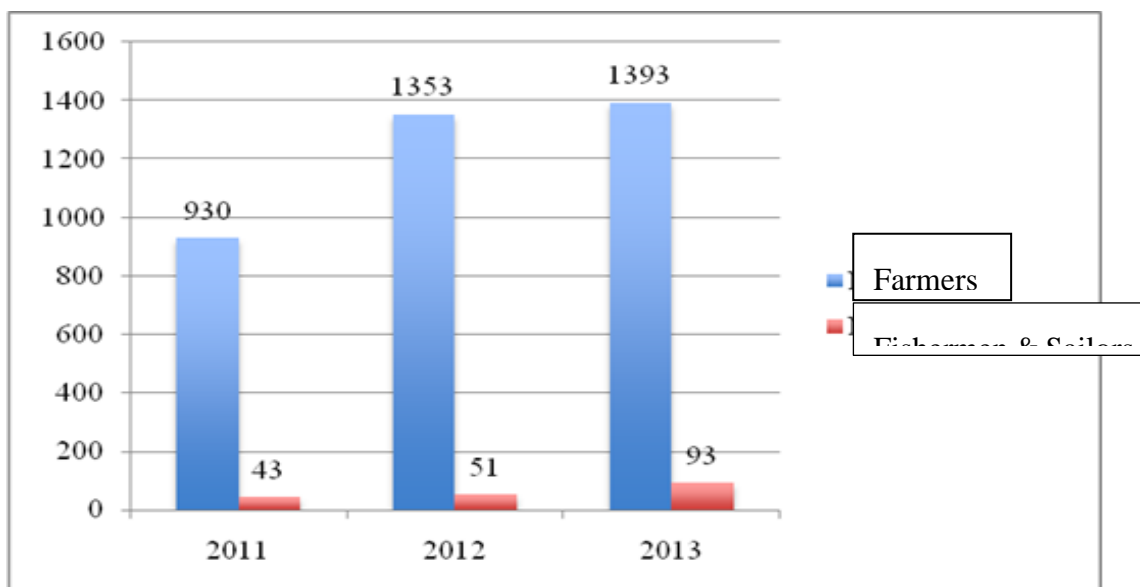
- Parts, moving parts: machine shaft, gears, chains, chains ... and other actuators.

- The moving parts: rotating parts with high speed (saws, knife plates of lawn mowers or slicers, flywheels, centrifuges ...); moving parts (hammers, milling machines, punching machines ...) or movement of the machine itself (cars, plows, tractors ...) creating the risk of rolling, rolling, clamping, cut ...
- Falling, falling, collapsed objects: often the result of unsound warehouses, factories, barns ... causing collapses, dropping objects from above to the employees;
- tool fragments or material splashes from machines, such as grass clippings, branches splashed from mowers, choppers or forage choppers; paddy ...
- The floor of the house, the yard or the barn floor is slippery, causing slippage and falls for workers and livestock.
- Electrical dangers: According to each voltage level and exposure method, there is a risk of electric shock, electric discharge, electromagnetic field, paralysis of the respiratory system, cardiovascular system, nervous system or causing fire and burns of employees. In addition, there is a risk of fire due to electric shock or electrical discharge.
- Harmful microbiological factors: pathogenic microorganisms, viruses, parasites, fungi, insects, etc.

c) The situation of occupational accidents and occupational diseases

According to incomplete reports of the Department of Agriculture and Rural Development, it shows that the problem of occupational accidents in agricultural production and rural occupations tends to increase. For the agricultural enterprise sector, on average, there are about 1,200 occupational accidents a year, the number of people having an accident is about 2,400 people, the level of compensation, treatment, and property damage is greater than the household scale by 2.5 times. (Tran Minh Manh, Department of Agro-forestry Processing & Factory-Ministry of Agriculture and Rural Development)

According to the final report of the National Program on occupational safety and health, in the period 2011-2013, 3,676 farmers, 187 fishermen and sailors died from occupational accidents and this number has increased over the years.



Source: Ministry of Labor, Invalids and Social Affairs (2015), Report on implementation of the National program on occupational safety and health period 2011-2015, proposed program for the period 2016-2020

10. Small and medium enterprises

a) General information

According to the GSO census, by the end of 2014, the whole country had 397.68 thousand small and medium enterprises, of which 288.29 thousand were micro enterprises (with 10 employees or less), 102.13 thousand enterprises. small (From over 10-200 employees in agriculture - forestry - fisheries and industry - construction; from over 10-50 people for trade and service) and 7.26 thousand medium enterprises (from over 200-300 people for agriculture - forestry - fisheries and industry - construction; from over 50-100 people for trade and service)

Total number of small and medium enterprises by size of employees

	2010	2011	2012	2013	2014
Micro enterprises	189.158	226.794	244.691	266.695	288.290
SSEs	84.401	100.068	99.018	99.576	102.126
SMEs	5.719	7.088	6.841	7.091	7.264
Total	279.278	333.950	350.550	373.362	397.680

Source: GSO, Annual Enterprise Census

According to the report of the Vietnam Small and Medium Enterprises Association, in 2016, there are nearly 600,000 small and medium enterprises in the country, accounting for 97.5% of the total number of active enterprises, with a total registered capital of about 121 billion USD. accounting for 30% of total registered capital of enterprises. Every year, SMEs contribute about 40% of GDP; 33% of industrial output value, 30% of export value and attracts nearly 60% of labor.

The Government's target orientation in the following years is to continue promoting enterprises in general and SMEs in particular to reach a total of 2 million enterprises, in 2015 alone, over 93,000 enterprises were newly established

b) Working environment and occupational risks

Factories: Most of the production facilities are narrow, the factories are temporary, lack of light; production materials and products make the arrangement, messy arrangement, making the workshop premises more narrow and unsanitary.

Labor machines, equipment and tools: In the past 5 years, private enterprises and small-scale handicraft households have made significant changes in the use of machines, equipment and tools. labor. Machines and equipment used in labor are often small, with medium technology. The proportion of machines and equipment with strict requirements on OSH used in small and medium enterprises is quite high, accounting for 31.4% of the total number of listed machines and equipment, mainly boilers (8.17%).) and air compressors (5.48%). But up to 21.59% of machines and equipment with strict requirements on OSH are in use but have not been declared; 42.54% of machines and equipment with strict requirements on occupational safety and health have not been tested or licensed to use.

Execution of working time and rest time: Many enterprises, private production establishments violate the law on working time and rest time: extending the work shift beyond 8 hours without need agreement, reduction of break time between shifts; mobilize workers to work 7 days a week. Some enterprises intentionally prolong the working time of workers by giving too high labor norms, forcing employees to work from 10 to 12 hours a day to finish, adversely affecting the employees' health.

c) The situation of occupational accidents and occupational diseases

- Up to now, there are no statistics on the situation of occupational accidents and occupational diseases in small and medium enterprises

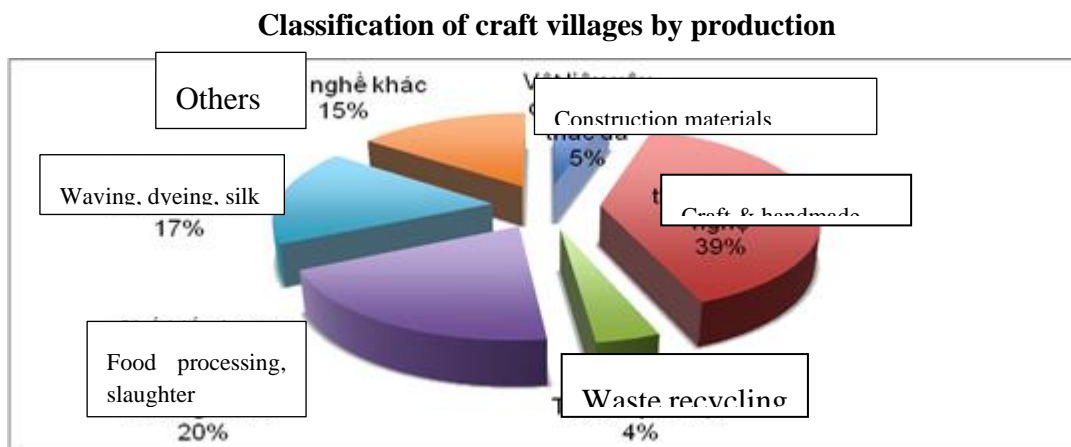
11. Craft Villages, Cooperatives

a) General information

Cooperatives: According to the Vietnam Cooperative Union, as of 2014, the whole country had 18,592 cooperatives, including 10,194 cooperatives operating in the agricultural sector (54.83%) and 8398 non-agricultural cooperatives (45.17%).

The total number of cooperative members in 2014 was 7,386,572, of which the number of regular employees working in the cooperative was 1,585,382. The total number of members of agricultural cooperatives is about 6.7 million people; transportation cooperatives with a total of 57,683 members; construction cooperatives attract more than 13,000 regular workers, etc. (Pham Thang (2015), Collective economic development, ensuring sustainable economic development, Communist Review)

Craft villages: By the end of 2014, the number of craft villages and handicraft villages in our country is 5,096. The number of traditional craft villages recognized according to the current government's craft village criteria is 1,748, attracting about 10 million workers. Craft villages not only bring high income but also bring a significant source of foreign currency for the country. Through export, these items have contributed to the export turnover of the country. However, the issue of ensuring the safety of workers in craft villages has not yet been focused.



b) Working environment and occupational risks

The common characteristic of most cooperatives and craft villages is small scale, lack of facilities, poor, outdated: narrow workshops, simple, outdated machinery and equipment technology ...

Especially the production establishments in the craft villages follow the model of households, production mixed with daily life, so it has caused many shortcomings in OSH.

The quality of labor and professional and technical qualifications in cooperatives and craft villages are generally low, mainly unskilled labor.

Working environment in craft villages:

- Toxic substances: Almost businesses in all 6 groups of craft villages generate toxic gases. Each production type emits different gases and at different levels.

- Noise: The fairly common factor causing occupational environment pollution in craft villages is noise. The extraction, processing and processing of raw materials, and processing of raw materials with the use of rudimentary and outdated machinery and tools have generated high noise. The noise generated mainly from production machines is higher than the permitted standard when they are located alternately in residential areas.

- Dust: During the production process, these craft villages all use coal as fuel, thus emitting coal dust into the air. In addition, the activities of weaving and dyeing villages also create a large amount of cotton dust, coal dust, polluting the labor environment.

- Harmful microbiological factors: Currently, biological factors in working environment are generated in most craft villages, but mainly concentrated in food processing craft villages, especially in food processing zones. animal husbandry, slaughtering, weaving and dyeing craft village.

- Microclimate factor: Microclimate with factors such as temperature, humidity, air and wind speed is one of the important factors causing occupational pollution.

c) The situation of occupational accidents and occupational diseases

Up to now, there are no statistics on the situation of occupational accidents and occupational diseases in cooperatives and craft villages. In fact, most of the establishments do not have books to track and statistic of occupational accidents and occupational diseases and do not strictly comply with the reporting regime of investigation when occupational accidents occur, including fatal occupational accidents. However, the situation of occupational accidents and work-related diseases in craft villages often occurs due to many reasons: the living environment is increasingly polluted because production facilities have not been able to handle solid wastes, factories. causing noise, dust, toxic emissions; There is a great risk of risks and unsafety, the owner of the

production facility does not pay attention to providing protective equipment for employees, a poor sense of observance of labor discipline, etc.

12. Informal sector

a) General information

The unstructured sector considered in this analysis includes non-agricultural businesses that do not have legal status. In fact, the craft village area has many business and production establishments operating in the form of families, not registered for business under the Law on Enterprises, Law on Cooperatives.

According to the General Statistics Office, as of 2014, the whole country had 4671.3 thousand non-agricultural individual production and business establishments, attracting nearly 7945.4 thousand employees.

b) Current working environment and occupational risks

According to an ILO report on the World Day of Workplace Safety and Health (Geneva, 2003), workers in the informal sector face serious safety and hygiene issues. The concept of nonstructural variation is very different, but it basically covers a lot of temporary jobs, and is mainly in developing countries where workers do not have a formal relationship with their employers. Some jobs are very dangerous by themselves, for example garbage collection and treatment. More generally, informal employees often have to work in a poor working environment and do not enjoy satisfactory social benefits. It is therefore obvious that workers working in these industries will not receive occupational health services, so there are accurate statistics on accidents, injuries and illnesses in this sector is very rare. However, the rate of injury and sickness must be at least equal to or higher than that in the formal employment sector. Often the cramped residence of the informal workers is also their workplace. They and their families are therefore continually subject to direct impacts from the dangers of work as well as environmental pollution.

Although the unstructured area implies many risks of labor safety, the management of occupational safety and health in this area so far has been left open. There is no agency responsible for the main management of this area in general and OSH in particular. Therefore, there is no statistical information and reports on the management of occupational safety and health as well as the situation of occupational accidents and occupational diseases.

4.5. Measures against Problems concerning OSH

4.5.1. OSH policies and programmers of organizations of employers and workers

➤ **Employee's organization:** The Vietnam General Confederation of Labor (VGCL) is tasked with representing workers' interests as a single and unified union organization in Vietnam that is made up of 18 National Unions and 63 provincial/cities Confederations of Labor across the country. The number of members of the VGCL is now more than 6 million people.

VGCL promulgated the Resolution No. 10^C/NQ-BCH dated 12 January 2017 on improving the efficiency of OSH in trade union organizations in the new situation with the following targets:

***General target:** Creating a positive change in the awareness and responsibility of trade union officials, employers and employees for effective implementation of occupational safety and health in the period of industrialization, modernization and international integration; continue to consolidate and improve the capacity of the apparatus and trade union officials working on occupational safety and health to meet the new situation requirements; improve working conditions, ensure occupational safety and health to prevent occupational accidents and occupational diseases for employees, build a culture of safety, build harmonious and stable labor relations advancement in the workplace, contributing to production development and increased work productivity.

Through good implementation of occupational safety and health, it contributes to affirm the role, consolidate and enhance the position of the union, develop union members, attract workers to join the union, build the strong worker class and strong trade unions.

***Specific targets:**

Strive from now to 2023, the work of occupational safety and health of the trade union organization will achieve the following targets:

- 100% of trade union officers working on occupational safety and health at higher levels are trained in occupational safety and health.
- 100% of key trade union officials of grassroots trade unions in enterprises at high-risk occupations are trained in occupational safety and health.
- 100% of businesses in industries at high risk, the networks of OSH workers are established

- 100% of state-owned enterprises, public service agencies and 50% or more of non-state enterprises responded to the movement "Green - Clean - Beautiful, Ensuring occupational safety and health".
- 100% of serious and fatal occupational accidents are reported, investigated and union representatives join the investigation team, supervise the settlement of regimes, vocational training and job placement for workers getting occupational accident, occupational disease.
- To initiate a lawsuit when the rights of the employee or group of the employees on OSH are seriously violated.

***Tasks and solutions:**

1. To improve the capacity and efficiency of trade unions to participate in building and supervising the implementation of laws, technical standards and regulations, and policies on occupational safety and health:
 2. Renew the form, improve the efficiency of information, propaganda, education and training to raise awareness and sense of responsibility for ensuring occupational safety and health for employers and officials , union members and workers
 3. Promote and improve the effectiveness of the mass movement for the work of occupational safety and health and contribute to promoting the implementation of the National Strategy on Green Growth and the response to climate change.
 4. Enhance effectiveness in coordination with functional agencies, employers in occupational safety and health
- Local trade unions actively coordinate with employers: develop occupational safety and health plans, internal rules, procedures and measures to ensure occupational safety and health, establish a safety network, negotiating and signing a collective labor agreement, organizing a dialogue at the workplace including specific, detailed terms and conditions on working conditions and occupational safety and health and is beneficial for employees; organize self-inspection of the work of occupational safety and health, assess risks and risks at the workplace; fully, promptly and accurately investigating all serious and fatal occupational accidents, supervising and urging the settlement of benefits for workers suffering from occupational accidents and diseases; organize the launch of emulation movements, mass movements to do the work of occupational safety and health, build an occupational safety culture at the workplace.

5. Promote and improve the quality of training for labor protection engineers, research and apply science, technology, safety and hygiene, improve working environment and conditions for employees: Improving the quality of training of labor protection engineers at Trade Union University and Ton Duc Thang University and training on occupational safety and health in vocational training institutions of the public system

There is no recent data of VGCL in the National program on OSH in the period 2015-2020. In the period of 2011-2015, VGCL provided propaganda, communication and information on OSH to 310 craft villages, 630 SMEs & SSEs and gave guideline on applying OSH management in 377 enterprises. Regards OSH trainings, VGCL organized the courses for 170 Employees working in jobs/occupations with strict requirements on OSH, 120 Employees working in heavy, hazardous and dangerous jobs/occupations and for 1,202 OSH officers at enterprises.

(Source: The National OSH Profile 2011-2015 by MOLISA, 2016)

***Employer organization:**

- **The Vietnam Chamber of Commerce and Industry (VCCI)** plays an important role on behalf of the business community (private, public and foreign companies) and is a member of the International Organization of Employers (IOE).
- **The Vietnam Union of Cooperatives (VCA)** is another employer organization that includes 17,000 cooperative members and small businesses nationwide.

Occupational Safety and Health Program at VCCI (<http://vbcsd.vn/detail.asp?id=468>)

1. Purpose:

Propagating, training and consulting to improve the quality of occupational safety and health in small and medium enterprises that are members of the Vietnam Chamber of Commerce and Industry

2. The goals of the activity

- Promote communication, information and counseling for employers and employees, raise their awareness and responsibility on labor insurance, strive to reach the target of 70% of medium and Small member of VCCI is informed and updated with appropriate information.

- Strengthen training for small and medium enterprises, members of VCCI on improving labor registration, preventing occupational accidents, reducing the proportion of polluted working environment, in order to strive to achieve the following goals: Over 60% of small and medium enterprises are VCCI members to improve the efficiency of occupational safety management and initially form a safety culture at the enterprise.
- Promote and expand international cooperation with countries and international organizations on OSH and labor protection to achieve the goal of technical assistance for nearly 50% of small and medium enterprises under VCCI in the process regional and world economic integration.

3. The detailed content of the activity

- Promote propaganda for employers and employees of small and medium enterprises, members of VCCI, to be aware of the importance of labor protection and OSH.

- Organizing workshops to disseminate OSH standards to raise awareness for employees
- Publish a quarterly newsletter on labor insurance
- Develop content and print all kinds of leaflets and posters on OSH and labor protection to serve the broad propaganda for associations, VCCI member enterprises.
- Update information on Labor protection and OSH on press, television and website of VCCI
- Conducting investigation and writing reports on the working conditions and improvement situation in small and medium-sized enterprises at high risk.

- Strengthen training and retraining for professional associations and members of VCCI to improve working conditions, prevent occupational accidents, and reduce the proportion of the working environment pollution.

- Organize training courses for small and medium enterprises on the improvement of working conditions, OSH to improve the efficiency of production and business.
- Organize training courses for VCCI's source staff on labor protection

- Advising small and medium enterprises to well implement occupational safety issues, making everyone and employees in the company comply with the labor regime well to build a good image for the company. In addition, VCCI also promotes the work of supporting companies to comply with professional ethics rules, creating a culture of behavior, setting up a beautiful image for enterprises.

- Consulting and guiding businesses to perform the work of occupational safety and health to implement corporate social responsibility (CSR)
- Building and upgrading the system of monitoring software for enterprises that have been trained in the work of labor protection and OSH to serve the year-end evaluation.
- Organize awards for businesses that perform well in CSR

- Develop documentary films on OSH in SMEs, broadcast regularly on television; Organize the OSH forum on television; Editing and posting information on OSH activities, information and documents on OSH on websites, newspapers

- Promote and expand international cooperation with countries and international organizations on OSH and labor protection to achieve the goal of technical assistance for nearly 50% of small and medium enterprises under VCCI in the process regional and world economic integration.

+ Invite experts to support the development of training curriculum / materials

+ Organize specialized business delegations to survey, study models and exchange experiences with foreign countries / companies on labor protection and OSH, then apply the OSH management model at the enterprise. .

4. Project implementation schedule, target, and scope

Project implementation period is 5 years, from 2011 to 2015. Project activities are conducted in small and medium enterprises that are members of VCCI nationwide.

5. Administrative agency (ministry, branch, ..) implementing agency, coordinating agency

- Research on the implementation of OSH work in enterprises to come up with reasonable programs.

- Coordinate with the Council of Employers in the provinces and Business Associations

- Collaborate with experts, lecturers from Institutes, Universities, etc. having research on OSH and specialized OSH Associations
- Coordinate with the branches of Vietnam Chamber of Commerce and Industry nationwide to implement the project activities.
- Increase the participation of employees and employers in the project activities
- The project's content is integrated with other related activities of the Vietnam Chamber of Commerce and Industry.

6. *Total capital and capital structure* (specify corporate contribution, international aid (if any): State budget capital from the National Program on OSH

7. *Scope of implementation and beneficiaries* (who directly impact and enjoy the Program's results)

- The employers
- Labor safety management officers
- Employees

8. *Evaluation of the socio-economic efficiency of the activity* (including indirect beneficiaries).

- Helping small and medium enterprises that are members of VCCI become more and more aware of the implementation of OSH responsibilities to produce clean, labor-consuming and high-quality goods.

***Results of implementing the National Program on occupational safety and health for the period 2011-2015 by VCCI (10 training courses, 700 people)**

- Estimated to date 30/6/2015 within the framework of the program's activities 10 training courses on "Occupational safety and health" were conducted, with more than 700 participants from Hung Yen, Hanoi, Yen Bai, Lang Son and Thai provinces. Number of training courses is increased by 01 course and number of trainees increased by 80 times people over the same period last year. The training courses are organized to popularize and update for managers, OSH officers; Company employees the issue of employee and the employer obligations, OSH partners, institutions, compensation regime for occupational accident and disease and compensation paid by the employer and covered by social insurance. In addition, the trainees were also instructed to perform the exercises on implementing OSH activities in enterprises...

in order to orient helping businesses to build a safe working environment, improve the efficiency of production and business activities, create motivation and link employees for sustainable development; provide knowledge for employees about their own rights and responsibilities, with complete and suitable information about working environment for good career orientation, etc.

(Source: COMMUNICATION ON ENGAGEMENT- COE) 2014-2015 at https://s3-us-west-2.amazonaws.com/ungc-production/attachments/cop_2015/198201/original/Bao_cao_tham_gia_COE_VCCI_Financial.pdf?1445306717)

In addition, VCCI provided propaganda, communication and information on OSH to 8,355 SMEs & SSEs, and gave guideline on applying OSH management to 82 enterprises. Regards OSH trainings, VCCI organized the courses for 6,758 OSH officers

The Vietnam Union of Cooperatives (VCA) provided propaganda, communication and information on OSH to 2,100 craft villages, 22,242 cooperatives, and 500 SMEs & SSEs. Regards OSH trainings, VCA organized the courses, for 819 Employees working in heavy, hazardous and dangerous jobs/occupations and for 8,384 OSH officers at enterprises.

(Source: *The National OSH Profile 2011-2015* by MOLISA, 2016)

***100-day program saying no to industrial accidents - SCORE project**

Campaign "100 days say no to occupational accidents" sponsored by Sustainable Business Development Program (SCORE) - representatives of International Labor Organization (ILO) and Vietnam Chamber of Commerce and Industry (VCCI) HCMC branch coordinated to organize from September 27, 2019 to January 15, 2020 with the goal of raising awareness and enhancing the participation of businesses and employees in ensuring occupational safety and health - Preventing fire and explosion at the workplace. The program attracted the participation of more than 60 enterprises, associations and partner organizations to sign up to perform 100 days of saying no to occupational accidents. This is an activity of the campaign to confirm the link between occupational safety and productivity in wood enterprises and supporting industries in Vietnam.

During the implementation of the 100-day program to say no to occupational accidents, there have been many activities built to support the business community such as: Training in

occupational safety management skills; surveying, evaluating and consulting on improving OSH, fire prevention at the factory; sharing experiences in designing, constructing, operating and testing fire protection systems at factories, competitions for sharing good images of occupational safety at factories.

Enterprises participating in the 100-day program of saying no to occupational accidents also actively responded to the program by launching the 100-day program of saying no to occupational accidents at their own enterprises. Pictures of launching ceremonies at the Company and good safety images are constantly being updated to VCCI HCM. Enterprises also actively participate in training, sharing and propaganda about ensuring occupational safety and health, preventing fire and explosion at the workplace. Enterprises wishing to be supported with assessment and consultation at factories also actively contacted VCCI HCM to receive support from the program. During the implementation of the program, many good safety improvements were also shared. The program also achieved impressive results. More than 1,600 people followed the campaign on social media to learn about the importance of workplace safety for employers and workers, as well as measures to help ensure occupational safety. 160 factory safety officers have participated in training activities, seminars and counseling to help identify and prevent workplace hazards and establish an effective fire protection system. 9 enterprises have supplemented and updated their policies on occupational health and safety.

(Source: <https://vcci-hcm.org.vn/tin-tuc/tin-hoat-dong-vcci-hcm/tong-ket-chuong-trinh-100-ngay-noi-khong-voi-tai-nan-lao-dong-du-score/25911/>)

4.5.2. Advantages and disadvantages of ongoing activities related to OSH at workplace

4.5.2.1. Advantages of ongoing activities related to OSH at workplace

Many OSH activities are going on at the workplaces, including activities related to providing basic occupational health services (e.g. information, communication, training on OSH, working environment monitoring, health care activities (health checkup, OD examination and detection, first aid, etc.), notification & reporting of occupational accidents and diseases, keeping health record/profile, providing clean drinking water, nutritious & safe foods, etc.) to activities related to occupational safety (e.g. regularly checking and accrediting machines, equipment, providing PPEs, etc.) and activities related to risk assessment and control, inspection of compliance of OSH regulations, etc. All these activities are aiming at to ensure

the employees to work in occupational safety and health conditions and that all occupational safety and health measures are implemented during the working process; prioritizing measures to prevent, preclude and control dangerous and hazardous factors during the working process in order to prevent occupational accidents and occupational diseases and at the same time to improve work productivity, to reduce the costs spent for occupational accidents and occupational diseases, etc. to ensure a health workforce and to increase the image of business.

To implement OSH activities at workplace is also to guarantee the occupational safety and health-related rights of employees:

a/ To work in fair, safe and occupational safety and health conditions; to request the employer to ensure safe and healthy working conditions during the working process and at the workplace;

b/ To be provided with adequate information on dangerous factors and hazardous factors at the workplace and prevention and combat measures; to be trained in occupational safety and health;

c/ To be provided with labor protection, health care and examination for detection of occupational diseases; to have occupational accident and disease insurance premiums paid by the employer; to enjoy the full regime in case he/she gets an occupational accident or disease; to have expenses for medical assessment of injuries and illnesses caused by occupational accidents and diseases paid; to take the initiative in seeking medical assessment for determination of the level of working capacity decrease and have the assessment expense paid in case the medical assessment results show that he/she is eligible for an increased allowance for occupational accidents or diseases;

d/ To request the employer to arrange an appropriate job after receiving treatment of occupational accident injuries or diseases;

dd/ To refuse to perform work or to leave the workplace while still being paid fully and not considered breaching working discipline when he/she is clearly aware of risks of occupational accidents that seriously threat his/her life or health and immediately notify such to the direct manager for settlement; to continue working only when the direct manager and the officer in charge of occupational safety and health have already addressed these risks to ensure occupational safety and health;

e/ To file complaints, denunciations or lawsuits in accordance with law.

4.5.2.2. Disadvantages of ongoing activities related to OSH at workplace

Beside the advantage of implementing OSH activities at workplace, there are some disadvantages as follows:

- Costly: every year the employers should spent an amount of money to invest in the OSH activities; paying salary to employees when away from work to participate in OSH training, etc.
- Human resource consume: hiring staffs as OSH officers, health workers, establishing OSH committee, OSH network, etc.
- Time consume: self-risk assessment, regular reporting occupational accidents and occupational diseases, OSH activities, investigation of OA & OD, etc.

However, the benefits of implementing OSH activities at workplace are much higher than investment in OSH activities and for both employees and employers

4.5.3. Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace

Nowadays, the concept of safety culture or culture of OSH or culture of prevention is propagandized and communicated widely on public media and included in the OSH training program for employers and employees (Group 1 & 4) as follows:

1. Group 1:

- a) System of policies and laws on OSH
- b) OSH operations include: Organizing the apparatus, management and implementation of regulations on OSH at the facility; assignment of responsibility and assignment of powers to OSH; basic knowledge about dangerous and harmful factors, measures to prevent and improve working conditions; **safety culture in production and business.**

4. Group 4:

- a) Basic knowledge about OSH: Rights and obligations of employers and employees; policies and regimes on OSH for employees; basic knowledge about dangerous and harmful factors at work and methods to improve working conditions; functions and duties of the workers in OSH network; **safety culture in production and business**; OSH rules, signboards, instruction boards for OSH and use of safety equipment, personal and professional protection equipment, first aid skills for occupational accidents , prevention of occupational diseases

In the OSH training curriculum, the definition of safety culture is introduced, the content of safety culture activities that need to be taken to achieve the goal, are mentioned, levels of safety culture and key decisive factors and benefits of development and building safety culture are analyzed, etc.

Until now, several industrial branches/sectors build safety culture at enterprises such as construction, Vietnam Electric Corporation, Vietnam Aviation Corporation, Agency for Radiation Protection and Nuclear Safety, etc. The example of building a safety culture at Vietnam's construction sites is the environmental dioxin remediation site at Danang International Airport that have successfully adapted to the site's stringent health and safety regulations, equal to the standards of the U.S. Occupational Safety and Health Administration. Workers attend two days of compulsory hazardous waste and construction safety training and annual eight-hour refresher courses. This is a far cry from the one-time 15-30-minute safety briefings common at other local building projects. And at least one health and safety officer is present per five to six workers at all times. Three years into the project, about 500 workers have completed over 800,000 safe work hours.

Vietnam Airlines strives to build an aviation safety culture by organizing dozens of internal training courses, applying various communication measures to achieve many results in building aviation safety culture. According to the Vietnam airline's data, the number of incidents and accidents occurring on average over 10,000 flights decreased from 30 incidents in 2015 to 11 in 2017. In addition, the severity of the incidents also decreased. Besides, the firm successfully built a reporting culture model. Many confidential and security reports are voluntarily implemented in addition to other mandatory and periodic reports. The National Airlines also aims to build an active safety culture and advanced safety culture by 2020 and by 2035, respectively.

4.6. Researches in OSH

4.6.1. List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH

No.	Occupational health service providers	Description
1	The National Institute for Occupational and Environmental Health (NIOEH)	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology - Laboratories for psycho-physiology of work and ergonomics
2	Vietnam National for Occupational Safety and Health (VNIOSH) and their 2 Regional Institutions in the central and South of VN)	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology - Laboratories for psycho-physiology of work and ergonomics
3	Institute of Public Health in Ho Chi Minh City	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment (measuring microclimate, lighting, noise, vibration, electro-magnetic

		<p>field, ionizing radiation, analyzing different types of dusts and chemicals, etc.)</p> <ul style="list-style-type: none"> - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
4	Nha Trang Pasteur Institute	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
5	Tay Nguyen Institute of Hygiene and Epidemiology	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology - Laboratories for psycho-physiology of work and ergonomics
6	The Institute of Maritime Medicine	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment in limited capacity (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.)

		<ul style="list-style-type: none"> - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology - Laboratories for psycho-physiology of work and ergonomics
7	The Departments of Public Health in Medical Colleges and Universities over the country	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment in limited capacity (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
8	13 Health Centers/Hospitals at Industrial Branch/Ministry	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment in limited capacity (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
9	63 Provincial Centers for Disease Control (in 63 provinces)	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment in limited capacity (measuring microclimate, lighting, noise, vibration, electro-magnetic field, ionizing radiation, analyzing different types of dusts and chemicals, etc.)

		<ul style="list-style-type: none"> - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
10	Centers for Preventive Medicine in districts, towns and cities	<ul style="list-style-type: none"> - Laboratories for industrial hygiene in limited capacity (measuring by digital equipment microclimate, lighting, noise, vibration, dust and chemicals.) - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
11	Centers for environment monitoring (including Centers belong to Ministry/Department of Natural Resources and Environment and private ones)	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment analysis
12	Department of Environment belong to National University, University of Polytechnics, University of Natural Resources and Environment, University of Sciences, and private university, etc. over the country	<ul style="list-style-type: none"> - Laboratories for industrial hygiene and environment analysis
13	State and General hospitals/clinics/health centers	<ul style="list-style-type: none"> - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology

14	63 Provincial and a Central Medical assessment/ expertise Councils	<ul style="list-style-type: none"> - Laboratories for analyzing micro-biological factors - Laboratories for biochemistry, hematology
	Center for accreditation of machine and equipment technical safety	<ul style="list-style-type: none"> - Laboratories for accreditation of machine and equipment technical safety
15	Center for Certification of conformity with personal protective equipment	<ul style="list-style-type: none"> - Laboratories for conformity of PPEs
16	Institute of Labor Science and Social Affairs	<ul style="list-style-type: none"> - Laboratories for industrial hygiene (measuring by digital equipment microclimate, lighting, noise, vibration, dust and chemicals.)
17	Center for trainings of MOLISA	<ul style="list-style-type: none"> - Laboratories for safety practice

4.6.2. Main research items and projects in OSH research and which institutions implement these (national level / institutional level)

The followings are summarized some OSH projects done mainly by the National Institute of Occupational & Environmental Health (NIOEH), Vietnam National Institute of Occupational Safety and Health (VNIOOSH that is belong to the Vietnam General Confederation of Labour (VGCL) and Thang Long University. Many other Institutions and Medical University have a lot of researches on OSH. However, it is difficult to collect this information.

Table 4.14. OSH-related scientific researches in 2015-2020

No.	Project	Institution	Duration
	National-level project		
1.	Development of bio-chemicals and hematological indicators for detection of compensated occupational diseases in Vietnam	NIOEH	2020-2022

2.	Study on lead poisoning situation in Vietnamese children and effectiveness of some interventions	NIOEH	2018
3.	Ministry-level projects		
4.	Assessment of status and development of national Technical Regulations on air environment at hospitals	NIOEH	2020-2021
5.	Assessment of asbestos pollution level and exposed workers' health and proposal of control measures to control asbestos pollution	NIOEH	2020-2021
6.	Health Impact Assessment of air pollution on people's health and development of a guideline on protection of people's health	NIOEH	2020-2021
7.	Study on the effect of organic solvents on worker hearing and propose preventive measures	NIOEH	2015
8.	Study on psycho-physiological factors and risks of working conditions in long-distance drivers to reduce occupational accidents	NIOEH	2017
9.	Research on interventional solutions for allergic rhinitis caused by cotton dust in garment workers	NIOEH	2018
10.	Situation of working condition and occupational diseases in some health care facilities in Can Tho province 2014-2017	NIOEH	2018

11.	Study on the status of standard prevention in general hospitals under the Hanoi Department of Health and evaluate the effectiveness of interventions	NIOEH	2019
12.	Study on lead poisoning among workers involved in lead battery recycling in the craft village and propose intervention measure	NIOEH	2018
13.	Research and evaluate the level of exposure to chlorine gas affecting the health of workers in seafood processing facilities and propose preventive solutions.	VNIOSH	2020
14.	Research, develop and apply the model of occupational safety and health management according to ISO 45001: 2018 standards in shoe manufacturing establishments	VNIOSH	2020
15.	The study proposes to apply index 1.6 Hexamethylene diamin (HAD) as biological monitoring standard for workers exposed to 1.6- Hexamethylene diisocyanate (HDI) in automobile and vehicle manufacturing facilities.	VNIOSH	2020
16.	Research to determine the level of Methyl Etyl Keton Methyl n- Buthyl Ketone infection in workers in some shoe manufacturing facilities and	VNIOSH	2019

	propose the application of biological surveillance standards.		
17.	Study on combined effects of hot microclimate and organic solvents on mental health of workers in the footwear industry	VNIOSH	2018
18.	Researching the current situation and proposing solutions to ensure occupational safety and health in handling and manually transporting rice in the Mekong River Delta	VNIOSH	2018
19.	Research on styrene exposure of workers working in composite plastic facilities and mitigation solutions	VNIOSH	2018
20.	Researching and manufacturing passive personal nicotine vapor sampling tools to assess occupational nicotine exposure in tobacco factories in Vietnam	VNIOSH	2018
21.	Study to determine the degree of ethylbenzene contamination via the mandelic acid (MA) and phenylglyoxyluc acid (PAG) metabolite in the urine of exposed workers.	VNIOSH	2018
22.	Study on organic dust exposure and extraneous allergic alveolar disease in feed processing and furniture workers	VNIOSH	2018
23.	Study to assess occupational safety and sanitation risks and propose the application of an appropriate	VNIOSH	2018

	management system in stone mining and processing facilities.		
24.	Study on the status of Formaldehyde poisoning diseases of workers in the wood processing industry, contributing to propose to the list of occupational diseases covered in Vietnam	VNIOSH	2017
25.	Research, evaluate and propose solutions to minimize occupational exposure risks of workers operating high frequency laminating machines	VNIOSH	2017
26.	Risk assessment and propose a management system for occupational safety and health at a sugar factory in the Central region according to the OHSAS 18000 model	VNIOSH	2017
27.	Evaluate the application situation and propose a list of national technical regulations and standards on occupational safety and sanitation for the period of international economic integration	VNIOSH	2017
28.	Research to assess occupational safety risks in the tanning industry and propose the application of an occupational safety and health management system according to OHSAS 18000 model	VNIOSH	2017
29.	Research and develop a toolkit to assess and propose solutions to control	VNIOSH	2017

	occupational accident risks in the construction of high-rise buildings		
30.	Building anthropometric Atlas Vietnamese in the current working age period	VNIOSH	2017
31.	Research, investigate, evaluate and forecast developments of working conditions in a number of industrial sectors in the period up to 2020	VNIOSH	2016
32.	"Investigate and evaluate the working conditions of fishermen on a fishing boat off the central coast and propose some scientific and technological solutions to ensure occupational safety for fishermen "	VNIOSH	2016
33.	Studying and evaluating the current situation of safety in using machines and equipment in rice production and proposing a program on occupational safety management and control in the Mekong Delta	VNIOSH	2016
34.	Assessment of occupational harm caused by exposure to aromatic hydrocarbons in the air of workers at Asphalt concrete production stations in the Central region	VNIOSH	2016
35.	Research on building oxygen technology process Completely chemical toluene using a low temperature catalytic material "	VNIOSH	2016

36.	"Study of the monomer's effects Isocyanate in the air environment in paint areas in automobile and motorcycle manufacturing facilities to the health of workers "	VNIOSH	2016
37.	"Additional research, complete the rating system of some filters of masks and semi-respirators "	VNIOSH	2016
38.	"Additional research, complete the rating system of some standard personal anti-fall vehicles "	VNIOSH	2016
39.	"Researching, manufacturing and testing protective shoe soles labor resistant to gasoline, oil and grease by blends of acrylonitril butadiene rubber (NBR) and polypropylene (PP) thermoplastics "	VNIOSH	2016
40.	"Applied research on qualitative indicators metabolism in urine to determine total permeability of benzene, toluene, xylene, styrene in workers with occupational exposure "	VNIOSH	2016
41.	"Research to perfect the scientific and evidence basis Technical data to determine the manual heavy lifting weight for female workers "	VNIOSH	2016
42.	Study on the chronic effects of benzene, toluene, and xylene in workers exposed to sub-standard concentrations by assaying some hematological indices,	VNIOSH	2016

	CYP2E1 mARN index and variation of the CYP2E1 gene.		
43.	Working conditions and health of female workers in some industrial parks and zones	Hanoi School of Public Health	2015-2017
44.	Study on working conditions and health impacts of urban sanitation workers in Hanoi and implementation of intervention measures to improve OSH knowledge and practice.	Hanoi School of Public Health	2017-2019
45.	Occupational accidents and work-related diseases among young workers in some craft villages in Hung Yen province	VHEMA	2019
	Institute-level projects		
46.	Study on Delta-Aminolevulinic acid Dehydratase (ALAD) genetic polymorphism of workers exposed to lead in Dong Mai craft village - Hung Yen	NIOEH	2015
47.	Application of comet technique to assess DNA damage in peripheral leukemia cells of workers exposed to lead and association with exposure indicators	NIOEH	2015
48.	Research on some road traffic safety violations and related factors in medical staffs participating in traffic	NIOEH	2016
49.	Evaluate the effects of lead exposure on the physical, intellectual and behavioral	NIOEH	2017

	development of children aged 3-10 years in a craft village		
50.	Study on lead poisoning situation in workers at Bac Bo Non-ferrous Metal Joint Stock Company in 2016	NIOEH	2016
51.	Situation of working environment in enterprises of the North in 2016-2019	NIOEH	2016-2019
52.	Situation of working environment in health care facilities of the North in 2016-2019	NIOEH	2016-2019
53.	Occupational disease detection in the leather, footwear, textile, electronics, mechanical industries and in medical facilities in 2018.	NIOEH	2018
54.	Development of 64 national Technical regulations on chemicals and dusts	NIOEH	2017
55.	Assessment of pollution and health impacts in the aluminum recycling village of Van Mon, Yen Phong, Bac Ninh	NIOEH	2018
56.	Eye health care for electronic factory workers	NIOEH	2018
57.	Assess environmental and occupational health risks in craft villages that recycle e-waste and develop guidelines for environmental and occupational health management in metal recycling craft villages in Vietnam	NIOEH	2018
58.	Initially assess air pollution and health impacts in some craft villages in Hanoi	NIOEH	2019

59.	Work stress and associated factors among nursing at Binh Duong general hospital in 2019	Thang Long University	2019
60.	Stress, anxiety, and depression among nursing and associated factors at National Hospital of Endocrinology in 2019	Thang Long University	2019
61.	Stress, anxiety, and depression among nursing and associated factors in clinical department of Vietnam National Children's Hospital in 2019	Thang Long University	2019
62.	Stress, anxiety, and depression among nursing and associated factors in 108 Military Central Hospital in 2019	Thang Long University	2019
63.	Implementation of food safety in street food enterprises and related factors at Ba Vi district, Hanoi in 2019	Thang Long University	2019
64.	Ergonomic intervention to improve working conditions in small and super-small mechanical enterprises at Thanh Thuy commune, Thanh Oai district, Hanoi, 2020 - 2021	Thang Long University	2020
65.	Mental health and associated factors among workers in garment and footwear enterprises in 2020 - 2021	Thang Long University	2020

66.	Situation of working environment and occupational health and safety activities in small and super small mechanical enterprises at one commune of Thanh Oai district, Hanoi, in 2016	Thang Long University	2016
67.	Situation of occupational accidents and associated factors in small and super-small mechanical enterprises at one commune of Thanh Oai District, Hanoi, in 2017	Thang Long University	2017
68.	One-day training workshop on Occupational Health and Safety for the OSH officers working at health care facilities	Thang Long University	2020
69.	Improving the ability to identify the hazards of e-waste and to assess the potential environmental and occupational health impacts for employers and workers involved in household processing of e-waste in the northern province of Vietnam	Thang Long University	2019
70.	Strengthening productivity and improving working conditions for Small and Micro-small enterprises by applying Occupational Safety and Health methods and processes	Thang Long University	2019

71.	The situation of musculoskeletal disorder of health workers at Hanoi Medical University Hospital in 2017 and related factors.	Thang Long University	2017
72.	Mental health and associated factors among staffs of the Emergency Rehabilitation Department at some hospitals in Hanoi in 2016.	Thang Long University	2017
73.	Situation and compliance with food safety regulations confectionery manufacturers in Co Hoang village, Phu Xuyen district, Hanoi, 2017.	Thang Long University	2017
74.	Etc.		

4.7. Status for Personnel engaged in the area of OSH

4.7.1. Ability of personnel engaged in the area of OSH

There is no data of personnel working in OSH area over the country until now and no any investigation on ability of OSH personnel over the country in the past 10 years.

In 2009-2010 with the support of WHO and Japanese Government, NIOEH conducted investigation on actual situation on capacities and the needs for enhancing provision of basic occupational health service in 1590 preventive medicine facilities and labour inspection units at different levels over the country (at that time the ADB project was not yet implemented in preventive medicine system). The results of NIOEH's investigation showed that the total number of OH personnel was 4,928. Most OH personnel had intermediate educations (55.3%), while those with university and postgraduate degrees accounted for more than 1/3 (38.5%) of the personnel. With respect to professional levels, doctor assistants accounted for the highest proportion (28.2%), followed by nurses (16.2%) and engineers/Bachelors (15.5%). Medical doctors (MDs) constituted only 13.6% and MDs specialized in epidemiology and preventive medicine accounted for only 1.2%.

Distribution by professional levels varied by organizational level: At the national level, MDs predominated (40%), followed by other disciplines (35.1%), with technicians accounting for almost 26%. At the provincial level, medical doctors accounted for 20.0-32.6% of the OH personnel, with especially high proportions (1/3 of the total staff) seen in the Centers for Occupational Health and Environment (COHEs) and the occupational health centers of the industrial branches/sectors. Bachelors/engineers in environment accounted for 20.6-22.1%, followed by technicians (13.5-20.3%). At the district level, doctor assistants constituted more than 1/3 of all personnel, technicians accounted for 27.5%, and medical doctors comprised only 3%. At the commune and enterprise levels, doctor assistants and nurses predominated (75 and 70%, respectively). In OSH inspection at provincial level, engineers and bachelors were majority (77.1%). At district level, there were 52.4% of engineers and bachelors and 1/3 of total staffs were other professions such as accountants, administrators, etc (35.5%).

Regards OSH trainings for OHS personnel's at different levels: More than 1/3 staffs were trained on OSH and occupational health. Majority of them attended short courses less than 2 weeks (59%). The basic trainings in university accounted for only 13.3% and post graduate trainings were 6.7%. There was different in trainings at different levels. At the national level, there were mainly basic trainings in university, constituting 43.9% and postgraduate trainings were 13.6%

The capacities of basic occupational health services (BOHS) provision at different levels were weak and limited. At provincial level: 64.6-98.5% of facilities did not have capacities in providing services of working environment surveillance in chemicals and dusts, electric field, electro-magnetic field, biological factor monitoring, biochemical and hematological tests OD diagnosis; skin tests; hearing abilities and lung function tests.

At district level: 90-100% of facilities did not have capacities in providing services of working environment surveillance in aspects of chemicals, dusts, microclimate, lighting, noise, biological factor monitoring, biochemical and hematological tests for OD diagnosis;

(Nguyen Bich Diep et al (2012). Need assessment for capacity building in provision of basic occupational health services in Vietnam. Journal of Practical Medicine No. 849-850, p.364-369)

In 2008 the Minister of Health issued Decision No. 4696 / QD-BYT promulgating the National Standard on Preventive Medicine Centers in provinces and centrally-run cities. So, after

that with ADB project (borrowing loans from ADB Bank), the provincial/City Preventive Medicine Centers over the country were upgraded and built capacities in terms of infrastructure, equipment, human resources and professional activities. This project was implemented from 2010-2015. Since then, the capacities of PPMCs were improved a lot. However, there is no any report of assessment the capacity of PPMCs in occupational health. One source, from that it can be referred to assess the capacity of PPMCs and Health Centers/Hospitals of Industrial Branches/Sectors in carrying out the working environment monitoring and occupational disease detection and diagnosis is the list of organizations capable doing working environment monitoring and the list of occupational disease clinics (being capable to detect and diagnose ODs).

According to Gov. Decree No. 44/2016/ND-CP, the organization that has enough conditions to take working environment monitoring, beside the conditions of infrastructure, equipment, number and qualification of staffs, it should meet the requirements of capacities working environment monitoring as follows:

- Measuring, testing and analyzing at the field and in the laboratory microclimate factors, including temperature, humidity, wind speed and heat radiation;

- Measuring, testing and analyzing at the field and in the laboratory physical factors, including: light, noise, frequency vibration, radiation, electromagnetic fields, ultraviolet radiation;

- Assessment of occupational exposure factors, including: microbiological factors, allergens, hypersensitivity, solvents;

- Assessment of workload and some psycho-physiological and ergonomic indicators: Assessment of physical workload; assessment of neuro-psychological stress/strain; Assessment of ergonomics at workplaces.

- Sampling, preservation, measurement, field testing and laboratory analysis of 70% of the following factors:

 - + Dust particles; analysis of silica content in dust, metal dust, coal dust, talc dust, cotton dust and asbestos dust;

 - + Minimum chemical factors NO_x, SO_x, CO, CO₂, organic solvents (benzene and homologues - toluene, xylene), mercury, arsenic, TNT, nicotine, insecticide;

Based on these above requirements, MOH released the list of organizations capable doing working environment monitoring. Until now (Nov. 2020), there are 177 organizations over the

country, in which in the OH network, 5 preventive medicine institutions, 61 provincial CDCs among 63 provinces and 5 Health Centers of Industrial Branches/Sectors among 13 ones, 11 District/Town Health Centers are capable to do working environment monitoring (accounted for 46.3% of the total). The remain organizations are Centers for environment monitoring belonging to Ministry/Provincial Department of Natural Resources and Environment and private organizations.

In Nov. 2020, MOH also announce the list of 65 organizations having licenses to examine and treat occupational diseases, in which there 3 preventive medicine institutions, 28 provincial CDCs among 63 provinces and 4 Health Centers of Industrial Branches/Sectors among 13 ones (accounted for 53.3% of the total). The rests are General hospitals and private clinics

4.7.2. Challenges of personnel engaged in the area of OSH:

In the situation of industrialization and modernization with fast economic and technology development and international integration, OSH personnel face the following challenges:

1. The labour cheap will attract more foreign investment in the country. Many new machines, technologies, materials and unknown chemicals are imported and used. In addition to the positive aspects of giving more job opportunities to local people, it increases also potential risks of occupational safety and health as well as environment pollution.
2. The strong development trend of mining, construction, energy, chemical industries and the increase in the use of electricity in industrialization and modernization will increase the risk of unsafely, occupational hygiene and pollution of working environment.
3. The strong development of small and medium enterprises with outdated technology level and not paying attention to occupational safety and environmental sanitation;
4. The development of craft villages, household economic sectors in the market mechanism without control on occupational safety and health also continues to increase pollution of working environment, ecological environment and increase work-related diseases and occupational accidents & diseases.

5. The labor force increases rapidly along with the shift of a large number of workers from the agricultural sector to the industrial sector with low skills and lack of industrial style, increasing the risk of occupational accidents and occupational diseases.
6. The workforce in agriculture - forestry - fishery production accounts for 50% of the total labor force of the whole country, and farmers in the process of industrialization and modernization of agriculture and rural areas are increasingly using more and more machinery, equipment, chemical fertilizers, plant protection chemicals, so the risk of occupational accidents and poisoning of plant protection chemicals is increasing, while the workforce working in labor protection at commune level does not have.
7. Besides, the international economic integration places requirements on corporate social responsibility in ensuring occupational safety and health. This is a big challenge for businesses operating in export. In addition, the global financial crisis and economic recession have had certain impacts on our economic development.
8. New issues and risks of occupational safety and health in working with advanced technology, e.g. Digitalization and ICT, Automation and robotics, and nanotechnology, etc. These advancements, like AI and Big Data, are accelerating and will also have a major impact on the workplace, changing the ways that people work, the environments that they work in, and the conditions under which they do their everyday job. These technology advancements will still provide new opportunities to overcome future challenges. For example, robots will take over dirtier, more dangerous and demeaning jobs previously undertaken by workers. Telework will cut commuting time, the related stress and the risk of accident occurrence. Wearable smart devices will allow managers to monitor worker behavior and relay safety and health advice and information to workers in real time. More importantly, these advancements will disrupt patterns of work-related injuries, deaths, and diseases. This disruption will create new challenges in workplace occupational health and safety for managers—challenges that must be overcome to develop reliable safety cultures within businesses.
9. Additional challenges are aging worker populations, gender gaps, often in the heavy industry and migrant workers. These issues will create unique challenges to companies focused on improving occupational health and safety conditions in the workplace.

4.7.3. Training and information for OSH personnel engaged in the area of OSH

4.7.3.1. Training and information for OSH officers

Table 4.15. Some results of OSH trainings for OSH officers from 2011-2014

No.	Training Subjects	Years			
		2011	2012	2013	2014
1	Employers, OSH officers	10,835	40,332	33,019	19,640

Source: The National OSH Profile 2010-2015 by MOLISA, 2016

On average from 2011 to 2014, each year, there were over 20,000 officers working on occupational safety and health in enterprises were trained and supported in training for occupational safety and health.

From 2011 to 2015, the people in charge of state management of occupational safety and health in the labor sector from the central level to the commune and ward level were trained at least 01 time. The total trainings were 35,597 people (2011 trained 8,162 people; trained 11,823 people in 2012; in 2013, 10,741 people worked in the state management of OSH, 2014 was 4,894 people). The training results at ministries, branches and localities are summarized in the Table below.

Table 4.16. OSH training at Ministries, industrial Branches/Sectors, provinces from 2011-2015

		OSH officers (People)
A	Ministries at central level	32,821
1	MOLISA	2,181
2	Ministry of Construction	3680
3	Ministry of Trade and Industry	835
4	Ministry of Agriculture and rural Development	2,581
5	Ministry of Health	6,000
6	Ministry of Defense	338
7	Ministry of Education and Training	0

		OSH officers (People)
8	Ministry of Communication and Information	0
9	VCCI	6,758
10	Việt Nam Cooperative Union	8,384
11	Vietnam General Confederation of Labor (VGCL)	1,202
12	Vietnamese Farmers Association	862
B	Provinces	71,485

Source: The National OSH Profile 2010-2015 by MOLISA, 2016

4.7.3.2. Training and information for OH staffs in the network by MOH

Table 4.17. Trainings on capacity building for OH network (2010-2013)

No.	Years	Number of training course	Number of participated organizations	Number of participants
1	2010	4510	18260	1,235,320
2	2011	1661	6143	309,994
3	2012	3,396	9,603	426,064
4	2013	1,429	5,577	138,739

(Source: Annual report on occupational health by VHEMA, MOH)

According to the report of the Ministry of Health: Since 2011, have supported an average of 3 training courses per year to guide the application of the model of prevention of occupational diseases and occupational health in high-risk sectors (mining, chemical industry, construction and health sector) in 3 regions for central provinces and cities; The occupational disease prevention model was applied in more than 300 new labor establishments, focusing on high-risk

industries such as construction, chemicals, mining and health sectors; organizing more than 500 training courses for facilities at high risk of occupational diseases, examined occupational diseases for more than 300,000 employees, measured and checked the working environment for more than 25,000 production establishments; organized nearly 100 training courses on completing the process of monitoring the working environment, diagnosis and assessing occupational diseases; Organized 102 training courses to improve the quality of OD examination and treatment; organized 03 training courses (03 areas) per year on occupational diseases prevention and health care for labor establishments in the health sector.

4.7.3.3. Training and information for OSH personnel engaged in occupational disease detection and diagnosis

The table below showed the training activities on occupational disease from 2010-2015 organized by NIOEH and Ho Chi Minh Institute of Public Health in the National program on OD prevention 2010-2015 and ADB project on strengthening capacities in OD detection and diagnosis for OD physicians/doctors at provincial and district levels, These data were under reported.

Table 4.18. Training on occupational disease detection and diagnosis in 2010-2015

Year	Topics	Number of training courses	No, of participants
2010	Skills and techniques of working environment monitoring and OD detection	02	96
	OD Diagnosis	04	107
2011	Occupational health and prevention of ODs	04	50
	Testing techniques of para-clinical indicators in OD diagnosis	06	201
	OD Diagnosis	08	108
2012	Testing techniques of para-clinical indicators in OD diagnosis	01	25
	Control and prevention of ODs	02	71
	OD detection and Diagnosis	07	112

2013	Testing techniques of para-clinical indicators in OD diagnosis	01	23
	Strengthening capacity of OD diagnosis and assessment	04	122
	OD Detection and Diagnosis	17	450
2014	Strengthening capacity of OD diagnosis and assessment, treatment and rehabilitation for OH staffs at provincial levels	02	34
	OD Detection and Diagnosis	07	210
2015	Strengthening capacity of OD diagnosis and assessment, treatment and rehabilitation for OH staffs at district levels	02	23
	OD Detection and Diagnosis	02	57
Total		69	1689

Source: The National OSH Profile 2010-2015 by MOLISA, 2016

In the period 2011-2015, 69 training courses on OD diagnosis and assessment, treatment and rehabilitation for 1,689 medical doctors engaged in OSH area at different levels were organized by the NIOEH and Ho Chi Minh Institute of Public Health, Some courses were in the national program on prevention of OD by MOH while some were in ADB project on strengthening capacities of OH personnel at different levels in OD detection and diagnosis, Others were in term of services.

Table 4.19. Number of participants attending different certificate courses organized by NIOEH from 2016-2020

Courses	2016	2017	2018	2019	8 months of 2020	total
OD detection and diagnosis		150	57	107	17	331
Working environment monitoring	46	453	171	153	25	848
Occupational health		1088	43	41		1172
Medical testing		612	22	45	111	790
Others	875		31	381	65	1352

Total	921	2303	293	727	218	4462
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Source: Report of certificate trainings, NIOEH 2016-2020

For the certificate training on OD detection and diagnosis, 331 medical doctors who work in the Department /Clinics of Occupational Diseases of Provincial CDCs and Health Centers/Hospitals belong to Industrial branches/Sectors and state or private hospitals, have attended this 3 months course organized by NIOEH. In addition, 790 staffs working in laboratories of medical testing attend the special courses on medical testing, e.g. bio-chemical tests for diagnosis of the compensated ODs, measurement of respiratory function, hearing capacity, etc.

For post graduate training program of PhD, in occupational health, the training institutions are the National Institute of Occupational Health (NIOEH from 2013 up to now), the National Institute of Epidemiology and Hygiene (before 2015), Army Academics (before 2015), Subjects for PhD, training are MDs with background of general and specialized MDs, except MDs specialized in preventive medicine, MSc, in preventive medicine with background not MDs specialized in preventive medicine, Specialized MD degree I and II, The NIOEH has enrolled PhD candidates from 2013 and up to now 5 PhD candidates completed their thesis, in which 3 candidates received Ph,D diploma of Occupational Health,

4.7.3.4. Training and information for OSH personnel engaged in working environment monitoring

Table 4.20. Training course on working environment monitoring in 2010-2015

Year	Training topics	No, of training courses	Number of participants
2010	Guideline on the techniques for working environment monitoring	01	28
2011	The techniques for working environment monitoring	03	53
	Working environment surveillance and measurement	05	102
2012	Testing techniques for environment indicators	02	188
2013	Guideline on measurement and checking working environment and	05	207

	controlling risk factors in working environment,		
	Working environment surveillance and measurement	07	139
2014	Capacity building in working environment control for OH staffs at provincial and district levels	03	51
	Working environment surveillance and measurement	08	117
	Basic psycho- physiology of work and ergonomics	02	21
2015	Capacity building in working environment control for OH staffs at provincial and district levels	03	64
	Working environment surveillance and measurement	03	80
	Total	42	1,050

Source: The National OSH Profile 2010-2015 by MOLISA, 2016

Similar to the training course on OD detection and diagnosis, in the period 2011-2015, 42 training courses on working environment monitoring were organized for 1,050 participants at provincial and district levels by NIOEH and Ho Chi Minh Institute of Public Health, Some courses were in the program on prevention of OD by MOH while some were in ADB project on strengthening capacities of OH personnel at different levels in working environment monitoring, Others were in term of services.

The training data by NIOEH from 2016-2020 (Table 4.17) showed that 848 staffs from Provincial CDCs, Health Centers/Hospitals belong to Industrial branches/Sectors and state or private environment monitoring centers, have attended this 1 months certificate course. In addition, NIOEH organized several specific courses on monitoring and measurement of psycho-physiological and ergonomic factors in working environment monitoring, mentoring training on analyzing chemical factors at laboratories, etc.

4.7.3.5. Training and information for medical staffs working in health units/centers at enterprises

Since OSH Law into effective, medical staffs working in the health unit/center at enterprise, who take care employees' health, need to attend the certificate training course on occupational health (see more details in the Item 3.7.1). The training institutions that are certified by MOH, are 3 Institutions of the preventive medicine system, e.g. the National Institute of Occupational

and Environmental Health (NIOEH), the Institute of Public Health in Ho Chi Minh City, the Nha Trang Pasteur Institute and some other OSH training Centers.

There is no nationwide data on the certificate training course on occupational health for medical staffs at enterprises, neither the number of medical staffs working at enterprises. According the annual OH report by VHEMA 2016 from 57 /63 provinces over the country, the total number of enterprises under their management was 71,082, in which the number of enterprises with more than 200 employees was 7,242 (accounted for 10.2%), enterprises with from 51-200 employees was 8,715 (12.3%) and the enterprises with less than 50 employees was 55,125 (77.5%). Among these enterprises, there were 8,291 enterprises (accounted 11.7%) having medical staffs, in which 3,815 enterprises had health centers (5.4%), 33 enterprises had hospitals (0.05%), 145 had clinics (0.2%), 2,478 enterprises had contracts with other health care facilities (3.5%) and the rest of 1,746 ones had medical staffs/units (2.4%). Number of medical staffs working in 8,291 enterprises was 11,223, in which medical doctors were 1,347 (12%), MDs specialized in preventive medicine were 203 (1.8%), university nurses: 680 (6%), doctor assistants: 4,975 (44.3%), college nurses: 2,371 (21.1%) and midwives: 724 (6.4%).

There are data of the certificate training course on occupational health for medical staffs at enterprises organized by NIOEH from 2017 to 2019. Total number of medical staffs at enterprises attending the OH courses was 1,172 in which 2017 was the highest number of 1,088 medical staffs, 43 staffs in 2018 and 41 in 2019 (Table 4.17).

4.8. Status for International Certification at Workplaces

4.8.1. Status for international certification at workplaces (e.g. ISO 45001)

In Vietnam, many enterprises have been managing the occupational health and safety of their work through the propagation, dissemination, and application of policies and regulations relating to labor laws or frameworks; researching and applying technical solutions, applying systems and tools to identify hazards, assess risks and control measures to prevent OSH and occupational health risks. For example, the application of ISO 9001, ISO 14001, OHSAS 18001, 5S, KY method (short for Kizen and Yochi, meaning "Predicting hazardous situations" - Japan Association of Industrial OSH) was implemented in OSH management. However, the assessment of dangerous and harmful factors at the workplace to propose proper measures to eliminate and

minimize potential hazards, improve working conditions, and health care for employees in the enterprises has not been implemented fully and systematically, following an advanced international method and standards⁷⁴.

According to ISO Survey 2019, an overall number of international certificates in Vietnam are presented in Table 4.20

Table 4.20. Number of certificates and sites in Vietnam in 2019⁷⁵

No	ISO standards	Certificates
1.	ISO 9001: 2015 Quality management systems - Requirements	3,441
2.	ISO 14001:2015 Environmental management systems -- Requirements with guidance for use	1,487
3.	ISO/IEC 27001:2013 Information technology -- Security techniques -- Information security management systems -- Requirements	327
4.	ISO 22000:2018 Food safety management systems -- Requirements for any organization in the food chain	470
5.	ISO 45001:2018 Occupational health and safety management systems -- Requirements with guidance for use	304
6.	ISO 13485:2016 Medical devices -- Quality management systems -- Requirements for regulatory purposes	112
7.	ISO 50001:2018 Energy management systems -- Requirements with guidance for use	84
8.	ISO 22301:2012 Societal security -- Business continuity management systems -- Requirements	1
9.	ISO/IEC 20000-1:2018 Information technology -- Service management -- Part 1: Service management system requirements	6
10.	ISO 28000:2007 Specification for security management systems for the supply chain	2

⁷⁴ <http://www.chatluongvacuocsong.vn/nghien-cuu-ap-dung-tieu-chuan-he-thong-quan-ly-an-toan-va-suc-khoe-nghe-nghiep-iso-450012018-vao-doanh-nghiep-viet-nam-d82899.html>

⁷⁵ [Committee 09. ISO Survey of certifications to management system standards - Full results](#)

- | | | |
|-----|---|---|
| 11. | ISO 37001:2016 Anti-bribery management systems -- Requirements with guidance for use | - |
| 12. | ISO 39001:2012 Road traffic safety management systems -- Requirements with guidance for use | - |
-

Up to date, a total of 304 enterprises/organizations in Vietnam officially achieved ISO 45001:2018 - Occupational health and safety management systems. Which, higher numbers of these certificates were found in the following sectors: food products, beverage and tobacco, electrical and optical equipment, basic metal & fabricated metal products, mining and quarrying, textiles and textile products.

Total numbers of sectors for each standard in Vietnam in 2019 are also shown in Table 4.21 below.

ISO 45001:2018 is the new international standard for an Occupational Health and Safety Management System. The objective of the certification is to reduce/prevent accidents, deaths, and injuries of people and loss or damage to the environment and equipment. Implementing an OHSMS enables an organization/enterprise to:

- Protect its workforce and others under its control
- Comply with legal requirements
- Facilitate continual improvement

ISO 45001 would be aligned with other management systems standards, such as ISO 9001:2015 and ISO 14001:2015. This standard will replace the OHSAS 18001.

Table 4.21. Numbers of sectors for each ISO standard in Vietnam in 2019⁷⁶

No	Sectors	ISO standards									
		ISO 9001	ISO 14001	ISO/IEC 27001	ISO 45001	ISO 50001	ISO 22301	ISO/IEC 20000-1	ISO 28000	ISO 37001	ISO 39001
1.	Agriculture, Fishing and Forestry	11	4	-	-	-	-	-	-	-	-
2.	Mining and quarrying	19	17	2	8	-	-	-	-	-	-
3.	Food products, beverage and tobacco	212	80	8	15	7	-	-	-	-	-
4.	Textiles and textile products	83	40	19	8	4	-	-	-	-	-
5.	Leather and leather products	43	24	-	4	-	-	-	-	-	-
6.	Manufacture of wood and wood products	17	4	-	-	-	-	-	1	-	-
7.	Pulp, paper and paper products	82	39	-	6	2	-	-	-	-	-
8.	Publishing companies	1	-	-	-	-	-	-	-	-	-
9.	Printing companies	43	21	-	2	-	-	-	-	-	-
10.	Manufacture of coke & refined petroleum products	14	7	-	1	-	-	-	-	-	-

⁷⁶ [Committee 09. ISO Survey of certifications to management system standards -- Full results](#)

No	Sectors	ISO standards									
		ISO 9001	ISO 14001	ISO/IEC 27001	ISO 45001	ISO 50001	ISO 22301	ISO/IEC 20000-1	ISO 28000	ISO 37001	ISO 39001
11.	Nuclear fuel	-	-	-	-	-	-	-	-	-	-
12.	Chemicals, chemical products & fibers	141	72	-	6	1	-	-	-	-	-
13.	Pharmaceuticals	18	3	-	-	-	-	-	-	-	-
14.	Rubber and plastic products	283	152	-	4	3	-	-	-	-	-
15.	Non-metallic mineral products	23	7	-	1	-	-	-	-	-	-
16.	Concrete, cement, lime, plaster, etc.	16	10	-	1	-	-	-	-	-	-
17.	Basic metal & fabricated metal products	332	150	-	9	7	-	-	-	-	-
18.	Machinery and equipment	90	37	-	5	2	-	-	-	-	-
19.	Electrical and optical equipment	261	192	-	21	1	-	-	-	-	-
20.	Shipbuilding	17	2	-	1	1	-	-	-	-	-
21.	Aerospace	2	-	-	-	-	-	-	-	-	-
22.	Other transport equipment	43	24	-	1	1	-	-	-	-	-

No	Sectors	ISO standards									
		ISO 9001	ISO 14001	ISO/IEC 27001	ISO 45001	ISO 50001	ISO 22301	ISO/IEC 20000-1	ISO 28000	ISO 37001	ISO 39001
23.	Manufacturing not elsewhere classified	74	19	-	4	-	-	-	-	-	-
24.	Recycling	2	4	-	1	-	-	-	-	-	-
25.	Electricity supply	16	4	6	1	-	-	-	-	-	-
26.	Gas supply	4	3	-	2	1	-	-	-	-	-
27.	Gas supply	11	4	-	-	-	-	-	-	-	-
28.	Construction	83	17	-	5	-	-	-	-	-	-
29.	Wholesale & retail trade, repairs of motor vehicles, motorcycles & personal & household goods	190	57	-	5	-	-	-	-	-	-
30.	Hotels and restaurants	4	7	-	-	1	-	-	-	-	-
31.	Transport, storage, and communication	71	15	17	4	1	-	-	-	-	-
32.	Financial intermediation, real estate, renting	122	7	197	-	1	-	-	-	-	-
33.	Information technology	23	2	234	1	-	1	5	-	-	-
34.	Engineering services	68	9	1	3	-	-	-	-	-	-
35.	Other Services	83	14	1	-	2	-	-	-	-	-

No	Sectors	ISO standards									
		ISO 9001	ISO 14001	ISO/IEC 27001	ISO 45001	ISO 50001	ISO 22301	ISO/IEC 20000-1	ISO 28000	ISO 37001	ISO 39001
36.	Public administration	-	1	-	-	-	-	-	-	-	-
37.	Education	17	1	-	1	-	-	-	-	-	-
38.	Health and social work	1	2	-	-	-	-	-	-	-	-
39.	Other social services	7	7	-	-	-	-	-	-	-	-
40.	Sector unknown	1071	529	57	197	53	-	1	1	-	-
Total		3598	1587	542	317	88	1	6	2	0	0

In 2017 - 2019, Quality Assurance and Testing Center 2 (QUATEST 2) carried out a project entitled "Researching and applying the occupational health and safety management system standard ISO 45001: 2018 into the enterprise in Vietnam". The project implemented a piloting ISO 45001 on 15 enterprises over the country. The findings showed that process of building and applying ISO 45001 in those enterprises faced some difficulties such as *****:

- (1) The business plan of enterprises affects the progress of system construction;
- (2) Assignment of personnel does not guarantee the required quantity and capacity;
- (3) Employees' awareness of the OSH is incomplete and synchronous;
- (4) The employee in charge of OSH also is concurrently responsible for many other jobs;
- (5) Investment costs for better improvement of OSH are limited;
- (6) The periodic self-inspection of OSH has not been fully implemented;
- (7) Updating and maintaining knowledge of legal documents on OHS has not been regular;
- (8) ISO 45001 is a newly issued standard, therefore understanding and implementation of the requirements are still limited.

Besides, there are several benefits of applying ISO 45001 for enterprises as follows:

- (1) improving OSH performance, preventing work-related injuries and illnesses, providing a safe and healthy workplace;
- (2) eliminating hazards and minimizing OSH risks by implementing effective preventive and protective measures;
- (3) enhancing OSH implementation and monitoring following required standards/regulations/technical standards;
- (4) socio-economic and environmental efficiency includes:
- (5) improving the ability to meet statutory requirements and other requirements on the management of OSH;
- (6) minimizing occupational accidents, occupational diseases, risks, reducing administrative costs;
- (7) reducing the overall cost of incidents, downtime, and operational interruptions costs;
- (8) reducing insurance costs; reduce absenteeism and labor turnover rates;
- (9) and contribute to improving work productivity and sustainable development.

Case studies:

Currently, many enterprises have focused on sustainable development by applying OHS assessment series to employees, especially the application of ISO 45001:2018 standard.

In April 2018, UNICONS is a pioneer in obtaining ISO certificate 45001:2018 in the construction industry in Vietnam.

In September 2018, Petrol Vietnam Ca Mau Fertilizer JSC was officially achieved ISO 45001:2018 standard issued by International Organization for Standardization ISO††††††††††††††††††††.

In May 2019, LDT Joint Stock Company was officially awarded OHS Assessment Series certified by CAC International Certification Organization according to ISO 45001:2018 issued by International Organization for Standardization ISO.

In March 2019, Honda Vietnam Limited Liability Company was awarded ISO 45001:2018 certificate by Certification Organization, Bureau Veritas Certification. Honda Vietnam is honored to become one of the first companies to receive an ISO 45001:2018 certificate.

Kim Nguu Chemical and Equipment Import-Export Joint Stock Company is one of the enterprises that has registered to participate in building a pilot model for the chemical industry under ISO 45001:2018. The building process of ISO 45001 at the Company brought some outstanding results as follows: (1) implementing identification and assessment of risks in production; (2) arrange danger warning system; (3) completing emergency response plans (fire, explosion, accident, poisoning); (4) upgrading collective kitchen; equipping personal protection and medical medicine cabinets in the working areas; conduct a quarterly legal compliance assessment and consultation ... By end of November 2019, Kim Nguu Company successfully organized an assessment and was granted ISO 45001: 2018 certification by NQA Certification Organization††††††††††††††††††††.

4.8.2. Worker's Awareness and Educational Levels regarding OSH

In recent years, when activities to disseminate knowledge about occupational safety and health, especially in private economic sector, craft villages and in agricultural production where there are hidden factors, high risks of insecurity, unsafely and unhealthy started to be focused.

†††††††††††††††††††† <https://knacert.com.vn/blogs/news/lots-of-enterprises-in-vietnam-successfully-apply-iso-450012018>

†††††††††††††††††††† <https://nscl.vn/thuan-loi-va-kho-khan-khi-trien-khai-iso-45001-tai-cong-tt-hoa-chat-va-thiet-bi-kim-nguu/>

The annual National Week on Occupational Safety & Health and Fire and Explosion Prevention has received a positive response from a large number of workers and production and business establishments across the country. Thanks to that, the awareness and understanding of OSH activities of employees and employers is gradually improved. The role of employees in occupational safety and health has been promoted, contributing to limiting occupational accidents and minimizing damage caused by occupational accidents. Many technical innovation initiatives introduced by employees have contributed to immediately solving problems in reducing risks leading to occupational accidents and diseases at the workplace.

However, the awareness of employers and employees on OSH is still limited: employers, especially in small enterprises, private production households, craft villages, agricultural cooperatives due to lack of understanding and lack of sense of compliance of the law on occupational safety and health, should also chase immediate economic profits without paying attention to the consequences and long-term harms due to not doing well the work of occupational safety and health; Employees move from agricultural to industrial sectors with low educational level, not familiar with industrial manners, and due to lack of training in occupational safety and health, they do not fully understand the dangers that need to take precautions when working with production. The results of analysis of the causes of occupational accidents from local reports showed that 43% of the accidents happened due to violation of technical standards and regulations on occupational safety.

The reason is the followings:

- The enforcement of the OSH law at all levels, sectors, employers and employees is not strict and there are shortcomings.

- Communication and propaganda to raise awareness on OSH is not regular, extensive and has not been properly invested. The dissemination and guidance of legal regulations often only reach the staff of the regulatory agencies, not to the establishments, especially the non-state establishments. The education, training and training of occupational safety and health have not been controlled in terms of quality and comprehensively deployed. The training for employees is still coping form, lack of visualization. Many establishments and enterprises do not organize training on occupational safety and health for workers when they first enter the jobs/occupations; The teaching capacity and expertise of the staff in charge of occupational safety and health are still limited. The number of teachers specialized in teaching OSH in schools is too small, mainly part-time, without professional training and lack of practical experience in occupational safety

and health; lack of textbooks on occupational safety and health for all educational levels ... therefore, most of the graduates lack basic understanding of OSH; workers do not have the necessary knowledge to protect themselves against the risks of occupational accidents, illness and occupational disease; Employers also do not fully see the obligations and benefits of occupational safety and health.

The followings are evidences of achievements in communication, information and trainings on OSH in implementing the National Program on OSH in the 2010-2015 periods. The propaganda about occupational safety and health has been paid more and more attention by the Party, State and Government. In ministries, branches, localities, enterprises, information and communication activities on occupational safety and health have been increasingly concerned and widely deployed nationwide in various and diversified forms.

Broadcast propaganda by Vietnam Television Station: annually on average, more than 20 programs and categories on safety and health have been built and broadcast with many programs being broadcast in the golden hour frame, which are evaluated to be effective, high, attracting a large number of viewers.

Propaganda on the Voice of Vietnam: Regularly maintain 5-10 programs on "occupational safety and health". Propagating and supporting propaganda about occupational safety and health to 62 radio and television stations of provinces and cities; coordinated to build and regularly maintain nearly 20 specialized pages, columns on propaganda on occupational safety and health on central newspapers and magazines and some local newspapers.

More than 300,000 leaflets, posters, 100,000 books, 10,000 CDs ... of over 40 different categories have been printed and distributed to employees. In particular, from 2012-2014, 12 training films on occupational safety and health have been developed and released for groups of industries with high risk and high risks of occupational accidents such as construction, chemicals, mechanics, mining. minerals, textiles ... for delivery to businesses, craft villages, and employees; build and compile 2 original sets of CDs on occupational safety and health, delivered on the radio system of communes, wards, enterprises and trade villages.

On average, each year agencies and organizations have organized dozens of contests to learn the law on OSH in small and medium enterprises, vocational schools; a number of contests were held for farmers in some provinces, the Farmer's Union; integrate propaganda about occupational safety and health in trade village meetings and festivals, on the radio system of the village and commune; organize propaganda and consultation activities, combine training on

occupational safety and health for households and workers in villages, communes and craft villages for more than 10 specific craft villages such as iron and wood craft villages paper, stone mining and processing, handicrafts, rush village, lime production ...; published hundreds of posters, notebooks, documents, leaflets on OSH to households, residential communities ...

Table 4.22. Some results of OSH trainings for workers/employees from 2011-2014

No.	Training Subjects	Years			
		2011	2012	2013	2014
1	Employees working in heavy, hazardous and dangerous jobs/occupations	31,737	60,876	64,623	35,431
2	Employees working in jobs/occupations with strict requirements on OSH	39,952	53,016	60,085	28,248

Source: The National OSH Profile 2010-2015 by MOLISA, 2016

On average from 2011 to 2014, each year, there were over 45,000 people working in occupations and jobs with strict requirements on occupational safety and health; 48,000 people do heavy, hazardous and dangerous occupations and jobs were trained and supported in training for occupational safety and health.

The training results at ministries, branches and localities from 2011 to 2015 for employees working in occupations and jobs with strict requirements on occupational safety and health and doing heavy, hazardous and dangerous occupations and jobs were summarized in the Table below.

Table 4.23. OSH training at Ministries, industrial Branches/Sectors, provinces from 2011-2015 for workers/employees

		Employees working in jobs/occupations with strict requirements on OSH (People)	Employees working in heavy, hazardous and dangerous jobs/occupations (People)
A	Ministries at central level	11,113	9,634
1	MOLISA	1,034	800
2	Ministry of Construction	6,152	500
3	Ministry of Trade and Industry	1,350	0

		Employees working in jobs/occupations with strict requirements on OSH (People)	Employees working in heavy, hazardous and dangerous jobs/occupations (People)
4	Ministry of Agriculture and rural Development	2,097	2,948
5	Ministry of Health	0	0
6	Ministry of Defense	310	120
7	Ministry of Education and Training	0	0
8	Ministry of Communication and Information	0	0
9	VCCI	0	0
10	Việt Nam Cooperative Union	0	819
11	Vietnam General Confederation of Labor (VGCL)	170	120
12	Vietnamese Farmers Association	0	4,327
B	Provinces	175,171	238,251

PART V
ANALYSIS AND ACTION PLAN

5.1. Gaps analysis of existing national OSH systems and recommendations of Action Points

5.1.1. Gaps analysis of existing national OSH systems:

According to OSH Law, the state OSH management agencies include the Ministry of Labour, Invalid & Social Affairs (MOLISA), the Ministry of Health (MOH), Ministries and ministerial-level agencies and the People Committee at different levels (Figure 5.1)

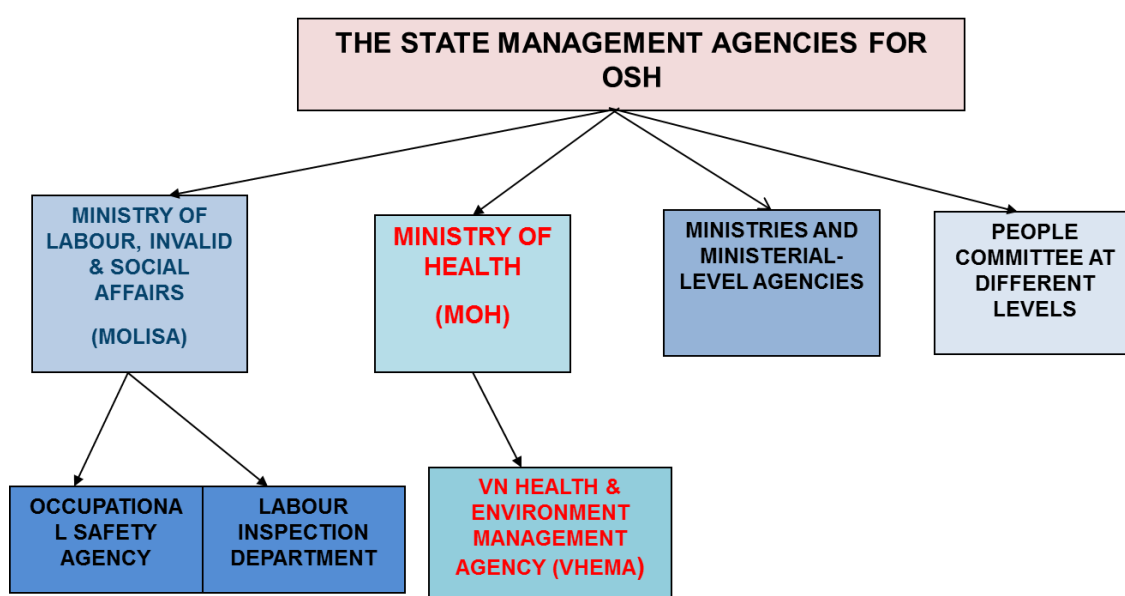


Figure 5.1: State management agencies on OSH at the central level

In addition, there are different agencies and organizations related to OSH, such as the Trade Union (Vietnam General Confederation of Labour: VGCL), the Vietnam Farmers ‘Association, Vietnam Chamber of Commerce and Industry (VCCI), Vietnam Cooperative Union, etc. in addition, National Occupational Safety and Health Council, provincial-level Occupational Safety and Health Councils and different Professional social organizations related to OSH participate actively in OSH. The state management responsibilities of these organizations for OSH are clearly regulated in OSH Law (see more details in Part 3)

The national OSH system is mainly divided into occupational safety (OS) and occupational health (OH) systems. MOLISA is responsible for OS while MOH is responsible for OH.

a/ **The MOLISA** is principally responsible for occupational safety. It has a network for management of occupational safety and reporting occupational accidents and technical incidents from central to enterprise level (See Figure 2). It also conducts OSH inspections (see more detail in Part 3). There are the following agencies under MOLISA

- The Department of Labor Safety is responsible for assisting the Minister in performing the function of state management in the field of occupational safety nationwide in accordance with the law.
- The Inspectorate of the MOLISA has the function of assisting the MOLISA in state management of inspection and performing the specialized inspection function of labor including OSH inspection.
- Institute of Labor Science and Social Affairs has the function of conducting basic researches and applied researches on environmental issues and working conditions to serve the State management of MOLISA; Consulting and participating in capacity building training in the field of occupational safety and health.
- Centers for Industry Safety Registration (CISR) are state accreditation agencies on safety techniques signed by MOLISA with the establishment decision. The Center's activities are implemented in three main areas: State inspection of equipment with strict requirements on occupational safety; safety engineering services, training and vocational training; propaganda and dissemination of knowledge about occupational safety.



Figure 5.2: The network of occupational safety

At provincial level, each province has Department of Labour, Invalid & Social Affairs (DOLISA) that includes Division of Employment & Occupational Safety and Labour Inspectorate. DOLISA has following tasks: Manage and guide the implementation of OS activities in the provinces and cities under its authority to comply with the OSH Law; Checking and inspecting the implementation of OS activities in the locality; synthesize reports to the Provincial People's Committee and the MOLISA on the situation of occupational accidents in the locality; investigating occupational accidents under its authority; guide employers' organizations and individuals to declare, investigate, record, make statistics and report on occupational accidents.

At District level, there is a Division of Labour, Invalid & Social Affairs (DOLISA) with the task related to OS: Professional guidance on the labor field; Monitoring and checking organizations and individuals in the implementation of labor regulations.

There is no any organization responsible for OS at commune level.

At enterprise/production, business establishment, there are OS units or people responsible for OS depending the number of employees (see more detail in Part 3).

b/ **The Ministry of Health** is responsible for occupational hygiene and occupational health. It offers basic occupational health services for the workers through its network from central level to enterprise level. This network also reports occupational health activities in general and occupational diseases in particular.

At the central level, Vietnam Health and Environment Management Agency (VHEMA) has a function of advising and assisting the Minister of Health in implementing state management and law enforcement in the fields of occupational and environmental health. In addition, there are 5 Institutions of the Preventive Medicine system under management of MOH and with functions of research, training and education on occupational health, provision of basic OH services, directing the line, organizing and directing the implementation of national and international programs on occupational health including the Institute of Occupational and Environmental Health, the Institute of Public Health in Ho Chi Minh City, Tay Nguyen Institute of Hygiene and Epidemiology, Nha Trang Pasteur Institute and Institute of Marine Medicine. Furthermore, universities of medical and pharmacy over the country are involved in training on OSH and some OH services (see more detail in Part 3 & 4)

At industrial Sectors/Ministry level: at 13 industrial Sectors/Ministries (e.g. Ministry of Trade and Industry, Ministry of Agriculture and Rural Development, Ministry of Construction,

Ministry of Transportation, Ministry of Security, Ministry of Defense, Rail Way, Aviation, Coal Mine and Mineral, Textile, Rubber, Petroleum, Post and Telecommunications sectors), previously there were Health/Occupational Health Centers, but now most of them have changed to industrial hospitals such as construction , garment & textile, Agriculture and Rural Development, Post hospitals, etc. They have Department of Occupational Health with functions of managing employees' health, providing basic OH services (working environment monitoring, health checkup, OD examination, OSH and first aid training, reporting occupational accidents and diseases, etc.) within their industrial sectors and reporting OH activities to MOH and related ministries. Five of them are capable to do working environment monitoring and 4 of them have occupational disease clinics.

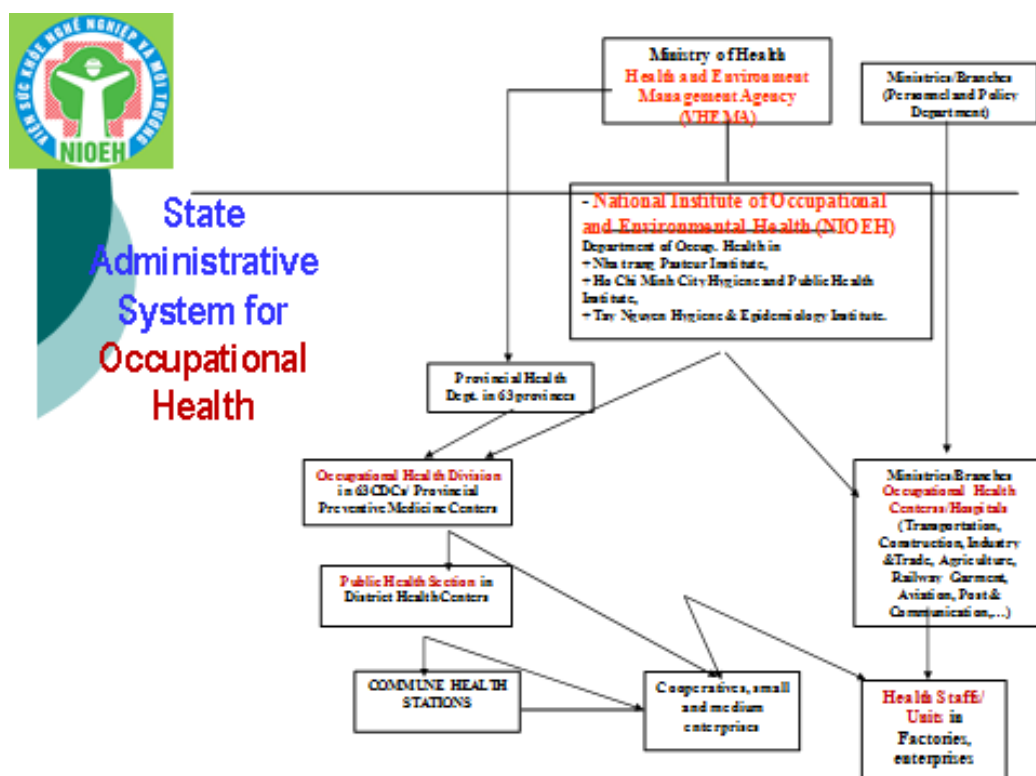


Figure 5.3: The network of occupational health

At Provincial level: The Department of Health (DOH) is responsible for management of OH activities within the province. Under DOH, there is Provincial /city Preventive Medicine Centers (PPMCs) that is a technical organization implementing OH activities. Before implementation of CDC model, throughout the country, there were 55 Provincial /city Preventive Medicine Centers (PPMCs) and eight province/city Centers for Protection of Workers' health and Environment (CPWHEs) where industries have developed fast, such as Hanoi, Vinh Phuc, Bac Ninh, Dong Nai, Binh Duong, Ho Chi Minh City, Can Tho and Kien

Giang. But, now MOH implement CDC model, there are no more PPMCs and CPWHEs (see more detail in the Part 2). At provincial/city level, there are CDCs that have Department of Occupational Health with the functions of managing employees' health, providing basic OH services (working environment monitoring, health checkup, OD examination, OSH and first aid training, reporting occupational accidents and diseases, etc.) within their provinces/city and reporting OH activities to MOH and Department of Health. 61 provincial CDCs are capable to do working environment monitoring and 28 provincial CDCs have licenses to examine occupational diseases

At District level, there are District Health Centers, in which the Section of public health is responsible for OH activities (e.g. working environment monitoring, health checkup, OSH and first aid training, reporting occupational accidents and diseases, etc.). 11 District/Town Health Centers are capable to do working environment monitoring and no ones have licences to examine occupational diseases

Commune/ward level: The Commune/Ward Health Station has duties and functions of primary health care for people, agricultural, household business, and informal sector workers.

Enterprise level: According the current regulations, depending on the number of workers there is medical staff or Medical Unit/Station implementing primary health care activities and provides health care, first aid for employees at enterprise (see more detail in Part 3).

c/ People Committee at provincial, district and commune levels are involved in management and implementation of OSH activities, inspecting and handling violations of OSH law, etc. in the localities. In addition, they send annual reports on OSH activities in the localities to the People's Councils and annually arrange resources for OSH communication, dissemination and education.

d/ The trade union (Vietnam General Confederation of Labour: VGCL) participates actively in OSH activities. It also has a network from central to grassroots levels. Currently, there are 63 Confederation of Labor of provinces and cities, 20 Trade unions of central branches, Trade Unions of the Corporation under the General Confederation all have a Legal Policy Committee and staff working in OSH. It acts as the representative of workers to protect the workers' health. Their activities include organizing educational seminars, trainings on OSH issues and investigating occupational disease or an occupational accident when they are reported, etc.

e/ **The Vietnam Chamber of Commerce and Industry (VCCI)** plays an important role on behalf of the business community (private, public and foreign companies) . **The Vietnam Union of Cooperatives (VCA)** is another employer organization that includes 17,000 cooperative members and small businesses nationwide. They involved in OSH activities with propagating, communication, training and consulting to improve OSH awareness and knowledge of employers and employees, focusing on SMEs & SSEs, informal sectors

f/ **The Vietnam Farmers Association** plays an important role on behalf of farmers. Similar to VCCI and VCA, they involved in OSH activities with propagating, communication, training and consulting to improve OSH awareness and knowledge of farmers. They also participate in investigating occupational accidents involving farmers, in the inspection, examination and supervision of the implementation of OSH regimes, policies and laws concerning the rights and obligations of farmers, etc.

g/ **National Occupational Safety and Health Council, provincial-level Occupational Safety and Health Councils and different Professional social organizations related to OSH participate in OSH activities too.**

The organizational system as well as the assignment and decentralization of the state management of OSH is very clear and more specific for the assignment and decentralization of the rights, duties and responsibilities of ministries and branches as stipulated in the OSH Law. Clearly separating the role of the MOLISA which is accountable to the Government for unified state management of OSH and responsible for occupational safety, the Ministry of Health is responsible for state management in terms of occupational hygiene, occupational health and occupational disease; clearly assigning responsibilities of ministries and branches in development, announcing national standards and regulations on occupational safety and health and in state management of machinery, equipment, materials and substances with strict requirements on OSH; additional responsibilities of the People's Committees at all levels from province, district to commune. The Council for occupational safety and health is organized by 3 levels: National, provincial and grassroots level. Regarding the organizational structure of OSH inspectorate, it is stipulating that the Inspector on OSH is the specialized inspection under the agency implementing the state management of labor at the central and provincial level.

Mechanism of socialization in the field of occupational safety and health has been promoted strongly at this stage in the content of training of occupational safety and health, testing of occupational safety and working environment monitoring. Thus, the state management system on occupational safety and health has been consolidated from ministries, central branches to commune level. At this stage, the participation in OSH activities on the basis of functions and tasks of the VGCL, employer representatives, e.g. VCCI, VCA, Vietnam Farmers Association, non-governmental organizations and professional organizations are more proactive, especially in building and reviewing draft policies, legislation on OSH, national OSH programs, communication, propaganda, mobilizing, training and investigation of occupational accidents and diseases.

However, the Vietnamese OSH administrative system is too fragmented, and each fragment has its own power structure, managerial efficiency is always questioned. In addition, as OSH management at the same time is by areas (e.g. MOLISA responsible for OS and MOH responsible for OH), by ministries (e.g. each industrial ministry/sector responsible for OSH within this ministry/sector) and by geography (by province), so some OSH activities are overlapping. Because information is rarely shared, quite often several ministries are doing the same thing at the same time. The lack of coordination among different departments is the most important weakness of the Vietnamese OSH administration system.

Although the OSH Law is comprehensive, covered all types of enterprises and every employees (with both contract and without contract, state and private sectors, formal and informal sectors) and the OSH administrative system is quite complete from central to grassroots levels, OSH activities in informal sectors, MSEs and SSEs, household business, etc. are not well implemented, employees do not access adequate basic occupational health services, working conditions are bad causing occupational accidents and diseases, etc. The reason is the State management organization system in general is still very lacking and weak, the inadequacies between the functions and tasks and the organizational structure, payroll and staff qualifications. For the OS system, the organizations responsible for OS are at from central to district levels, no ones at commune level. In addition, OSH inspection exist only at central and provincial level. For OH system, although it covers from central to grassroots levels, but the capacity of district and commune levels in providing basic OH services is weak.

Regards the OSH organizational structure, the state OSH inspectorate at recent years has not been stable: The inspection staff is both lacking in quantity and weak in quality; The Inspector on OSH is a part of the general inspection, so there are still many shortcomings and

limitations; personnel for OSH inspection, the labor inspection force with technical expertise to carry out inspection and examination on OSH are less and less, some provinces do not have; The structure of OSH inspection in particular and labour inspection in general just concentrate at the national and provincial level. So, the force doing the OSH inspection is too thin. This leads to an overload when organizing the OSH inspection. Both central and local authorities focus on inspecting OSH but only inspect no more than 2% of enterprises annually.

The current management agency for technical inspection of occupational safety has not brought into play the technical capacity and professional capacity of technical experts. The inspection service market has been formed according to the state socialization policy but has not yet had adequate management guidelines, causing unfair competition and poor quality of inspection services causing irritation in public opinion.

The management of the working environment and the health of the employees at the production establishments is still very limited, the number of working places and employees under management accounts for a very low rate due to limited number of occupational hygienists and occupational disease doctors. The health sector is also facing difficulties in training qualified staff to detect and treat occupational diseases. Some provinces and cities have also set up occupational diseases clinics, but the implementation is ineffective due to the lack of doctors, equipment and laboratories. Most of the medical and nursing facilities for occupational rehabilitation lack materials, equipment and professional staff. In addition, there is not clear assignment of responsibilities in the management of the working environment and health care for employees in different levels. As a result, the informal sector is still gap in OSH implementation. Furthermore, some last years, the organizational structure of OH network at provincial and district levels is changing a lot. At provincial level, the CDC model has been implemented while at district level, the preventive medicine center model has been reestablished that can cause rotation and transfer of OH personnel and uneven professional qualifications.

The state management responsibilities of the People's Committees at all levels for OSH are clearly indicated in OSH Law. However, the compliance with the Law on OSH on the responsibilities of the People's Committees at all levels is also very limited. They do not allocate enough local budget for supporting OSH activities. In addition, the responsibilities in reporting to the People's Councils of the same level on OSH activities is still limited and has not been strictly implemented in many localities.

The work of statistics and reporting is still the weakest step in the implementation of OSH policies and laws, the reason comes from the fact that there are still many state management agencies, especially at the commune level and enterprises, especially in MSEs & SSEs have not fully performed the statutory duties; the application of information technology to improve quality and compliance in the observance of the reporting and statistics regime remains limited.

5.1.2. Recommendations of action points for national OSH systems

- Strengthening coordination among different ministries, levels and organizations related to OSH in OSH management and implementation
- Building capacities for OSH management and implementation at all levels, especially for district and commune levels
- Building capacity for OSH inspection in terms of personnel, capacity and methodology
- Assignment clearly responsibilities of OSH management and implementation in informal sector to which state OSH management agency
- Promoting the role of local authorities in support of OSH management and implementation
- Improvement of reporting system of occupational accidents and occupational diseases

5.1.3. Support needs assessment of national OSH systems from Japanese government

- Sharing experiences on national OSH system in Japan
- Support need assessment on weakness, strength and effectiveness of national OSH system from Japanese government

5.2. Gaps analysis of current OSH Management at workplaces and recommendations of Action Points

5.2.1. Gaps analysis of current OSH management at workplaces

The Legal Requirements for activities for OSH management at workplaces are described in details in the Part 3, Item 3.8. There are a lot of activities that should be done at workplaces for OSH management according to the OSH Law 2015 and other related legislative documents, including establishing OSH Council, OS and medical units/divisions and OSH workers' network; making OSH plans, conducting risk assessments and Working Environment Monitoring, availability of hygiene and sanitary facilities at workplace; developing emergency response plans, organizing the rescue/first aid teams, self-examining/checking, making statistics and reports on OSH activities and occupational accidents, occupational diseases; OSH

trainings; PPEs provision; health care activities (e.g. pre-employment and periodic health checks, Employment placement Health Examination, OD regular and periodic examination/detection, handling technical incidents and first aid, Medical assessment/expertise for cases of ODs and OIs, Convalescence and health rehabilitation after medical treatment of injuries and diseases); Management of machinery, equipment, supplies and Substances subject to strict requirements for OSH, etc. Some activities should be done by enterprises themselves (e.g. establishing OSH Council, OS and medical units/divisions and OSH workers' network; making OSH plans, conducting risk assessments, PPEs provision, etc.) while others are done in collaboration with the professional organizations (OD regular and periodic examination/detection, handling technical incidents and first aid, Medical assessment/expertise for cases of ODs and OIs, OSH trainings, Management of machinery, equipment, supplies and Substances subject to strict requirements for OSH, etc.)

Since OSH Law effective, OSH activities have been paid more special attention. However, our economy is thriving, apart from state-owned enterprises, we have a lot of workers in foreign invested enterprises, private enterprises and even households and cooperatives ...Each year, about two million new employees enter the labor market, nearly 100 thousand new enterprises are born, with many new technologies and equipment, leading to new difficulties in OSH management at workplaces.

As it is estimated that currently the country has about 800,000 enterprises, production and business establishments, of which more than 95% are small and medium enterprises and 2.3 million households do business. In general, the large enterprises do well OSH management at workplaces while in MSEs & SSEs, households and cooperatives, OSH activities are very limited. There is a gap in knowledge and attitudes about OSH in the informal sector where there is no labor relation. According to the general habits of Vietnamese SMEs, only when risks occur, they will find ways to deal with and solve them without the habit of proactive prevention in the beginning (active prevention). A safe working environment is one of the factors that help businesses maintain stability and success in their production and business activities. However, the majority of SMEs in Vietnam have not paid attention to this issue. It is possible that the employer's awareness is still limited, does not pay attention to the rights of employees, not study labor laws and regulations on OSH activities, but only to deal with inspection. On the other hand, today's businesses are also facing many difficulties (in terms of capital, technology, sales, wages, taxes ...). Some businesses only pay attention to what is needed immediately for production and business, but have not paid attention to what may happen in the future, so they have used

technology and equipment, using labor without contracts, untrained, seasonal workers ... to reduce costs. Employees move from agricultural to industrial sectors with low educational level, not familiar with industrial manners, and due to lack of training in occupational safety and health, they do not fully understand the dangers that need to take precautions when working with production. The results of analysis of the causes of occupational accidents from local reports showed that 43% of the accidents happened due to violation of technical standards and regulations on occupational safety.

Investment in OSH is very limited compared to the requirements. Local authorities have not spent much budget to support OSH activities. Enterprises, the majority of small businesses and private enterprises invest very little in OSH, in terms of personnel, training and equipment. So, occupational accidents happen quite a lot, especially in the non-labor relations area, especially in the construction field or in the mining sector, in stone mining.

Regards the working environment monitoring (WEM), according to OSH Law every enterprise should do WEM at least 1 time per year. The annual OH reports from 2015-2019 by VHEMA, MOH showed that the estimated rate of enterprises organized WEM was less than 10% among the total number of enterprises under management (see Table 4.9). Take an example of 2016. According to the Labor Force Survey Report of the General Statistics Office in 2016, out of 53.3 million employed people nationwide, only 12.8 million have a labor contract (accounting for 24%). By the end of 2016, the health sector was able to manage the occupational health information of 71,082 labor establishments with more than 4 million workers (accounting for 31.2% of the total number of employees in the working sector with contract). The number of establishments with dangerous and hazardous factors was 28,747 (40.4%) with 798,926 employees directly exposed to harmful and dangerous factors out of a total of more than 2 million people working in these facilities. The most worrying thing is that out of 7,242 establishments owning over 200 employees, there are 1,419,434 employees working in 1,676 establishments with harmful and dangerous factors; of which 506,624 people were directly exposed to harmful and dangerous factors (235,959 are female). Among 71,082 labor establishments, 6,293 establishments organized WEM (accounted 8.8%). As mentioned in the Part 4, there are 177 organizations announced by VHEMA, MOH over the country that are capable for taking WEM, in which in the OH network, there are 5 preventive medicine institutions, 61 provincial CDCs among 63 provinces and 5 Health Centers of Industrial Branches/Sectors among 13 ones while there are only 11 District/Town Health Centers. The remain organizations are Centers for

environment monitoring belonging to Ministry/Provincial Department of Natural Resources and Environment and private organizations.

For periodic health checkup, the rate of employees getting periodic health examination each year among total employees was also very low. In 2016, according to the annual report by VHEMA, 1,538,056 employees were examined periodically their health over the country, accounted for 12% among employees with work contract (12.8 millions) and 2.9% among total number of employees over the country (53.3 millions). The organizations that are involved in health checkup are organizations in OH network (e.g. preventive medicine institutions, 63 CDCs and 13 Health Centers/hospitals of Industrial Branches/Sectors and District/Town Health Centers), state general hospitals and clinics and private ones.

For occupational disease examination, Table 4.9 indicates that the estimated rate of employees involved in occupational disease detection from 2015-2019 in average is 7.9%. This rate is calculated among employees doing to hazardous and harmful jobs/occupations (estimated 3 million employees). If it is calculated among total number of employees (for example 53.3 million in 2016), the rate would be very small. There are 65 organizations having licenses to examine and treat occupational diseases announced by MOH in 2020, in which there 3 preventive medicine institutions, 28 provincial CDCs among 63 provinces and 4 Health Centers of Industrial Branches/Sectors among 13 ones (accounted for 53.3% of the total). The rests are General hospitals and private clinics.

It is similar situation of occupational accidents. Each year, about two million new employees enter the labor market, nearly 100 thousand new enterprises are born, with many new technologies and equipment. Because if calculated according to the percentage of people suffering from occupational accidents per 100 thousand people, the number of employees usually increases, the frequency of occupational accidents also increases each year. However, according to the annual report, every year there is about 900 people die from occupational accidents. However, the actual number of industrial accidents is much larger. Table 4.9 shows that the estimated rate of enterprises reporting occupational injury is 6.8%. Because, the number of executing enterprises reporting the occupational accident situation is not strict and incomplete, so the synthesis and assessment of the occupational accident situation in Vietnam still faces many difficulties, inaccuracies, not yet properly assess the actual occupational accident situation. One of the reasons for the low reporting rate of occupational accidents is that the occupational accident reporting system still has shortcomings and difficulties in implementing. Besides, the

force doing the OSH inspection is also too thin. Currently there are about 400 labor inspectors nationwide, of which the number of OSH inspectors does not exceed 100 people, both central and local levels. This leads to an overload when organizing the inspection, because at this time there are more than seven hundred thousand enterprises, not to mention the non-labor relations area. Both central and local authorities focus on inspecting OSH but only inspect no more than 2% of enterprises annually.

Regards, OSH training, up to now, according to MOLISA, there are more than 400 OSH training service organizations that contribute significantly to the transmission of OSH information and knowledge. The number of people receiving OSH information and training has increased every year thanks to the socialization of training activities. In the 2011-2015 period, each year, about 500,000 to 1.1 million people were propagated, disseminated and trained; In the 2016-2018 period, the number of trainees trained by OSH training organizations is about 1.2 to 2.1 million people. In addition, in 2018, businesses and organizations also organized training for about 5 million people. So, it is estimated 5 million people are trained per year while the training subjects in accordance with the OSH Law are extended to the area without labor relations with over 35 million people, bringing the total number of employees to be trained to about 55 million people. Comparing with the current training capacity of about 5 million people / year requires more socialization, attracting social resources for training.

Nowadays, there is a huge number of young employees working in agriculture and craft villages in Vietnam. According to statistics, each year Vietnam has about 1 million young workers entering the labor market. They are the future owners of the country, but are facing labor unsafety challenges such as working conditions, lack of skills and knowledge, and a lack of voice on OSH issues. Recent research by the International Labor Organization (ILO) on the status of knowledge, attitudes and behaviors on occupational safety and health of young workers in the agricultural sector and craft villages in some provinces and cities in Vietnam showed that the majority of young workers usually works 40 hours / week and faces many OSH risks. The majority of them are not trained in occupational safety and health. They tend to comply not well with OSH regulations; in particular do not take steps to ensure occupational safety and care about safety procedures at work. As a result, recent studies show that young workers aged 15-24 have rates of occupational injuries and diseases 40% higher than that of older workers. To ensure OSH and ensure a sustainable future for young workers, it is necessary to have policies to ensure OSH for them. In the immediate future, it is necessary to introduce soon OSH knowledge to teaching in high schools and vocational schools

5.2.2. Recommendations of action points for OSH management at workplaces:

- Strengthening information, propaganda and training on OSH for employees and employers, especially in informal sector and young workers by social organizations and local authorities in order to raise the responsibility of employers and employees in the implementation of OSH activities.
- Strengthening socialization of information, propaganda and training on OSH
- Development of specific legislative documents on guideline of implementation of OSH activities, especially health care for workers in informal sector
- Introduction of OSH knowledge to teaching in high schools and vocational schools
- Building capacity in WEM and OD examination for OH organizations at provincial and district levels

5.2.3. Support needs assessment of OSH management at workplaces from Japanese government

- Sharing experiences from Japan how OSH management at workplaces, especially in informal sector and young workers
- Sharing Japanese legislative documents/legal requirements for OSH management at workplaces
- Support to develop legislative documents or specific project on strengthening OSH management at workplaces in informal sector
- Support need assessment of OSH management at workplaces in order to find the measures of improving OSH management at workplaces

5.3. Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points

5.3.1. Gaps analysis of existing professional education for personnel engaged in the area of OSH

The personnel engaged in the area of OSH can be divided into two groups: occupational safety and occupational health.

a/ Occupational safety personnel (OS personnel):

As mentioned in the Part 3, regards professional education on occupational safety, there are two universities (Trade Union University in the North of Vietnam and Ton Duc Thang University in the South of Vietnam) that train Master and bachelor of labor protection/occupational safety. The training program related to labor protection/occupational safety for bachelor covers mostly the topics of occupational safety and environment

engineering. For Master training, they train OSH management and occupational safety officers. In addition, the Center for Occupational Safety and Environmental Technology (COSENT) under Ton Duc Thang University also organized short-term training courses on Business Safety, Health, Safety and Environment (HSE) with Training time is 8 months. The course content includes specialized subjects related to occupational safety and health and the environment, helping students to understand the basics of relevant issues.

(Source: The National OSH Profile 2010-2015 by MOLISA, 2016)

In addition, for the college and intermediate level OS personnel, some Technology Colleges, Department of Labour Protection and Environment train 2.5 years for college and 1.5 years for intermediate levels. The training program covers mostly occupational safety and environment engineering, e.g. electricity, machines, chemicals, radiation, lifting equipment and construction safety, waste water and solid waste treatment, air pollution engineering and about 10% of total training time for occupational hygiene, work organization, ergonomics and first aid practice.

The number of trained labour protection/occupational safety engineers by two universities does not meet the actual demands of enterprises, especially during industrialization and modernization in Vietnam many foreign investment companies, industrial zones and parks have been established and the requirements of OS personnel are very big. There is no data on training the college and intermediate level OS personnel. In fact, the shortage of OS personnel working at enterprises is very serious as according to the OSH Law 2015, each enterprise with 300 or more employees must arrange at least one full-time OS officer. For specific enterprises, in production there are many dangerous factors, from 50 employees or more must also arrange a person to be in charge of OS. Enterprises with 1,000 or more employees must set up OS division. Currently the country has about 800,000 enterprises, production and business establishments, of which more than 95% are small and medium enterprises and 2.3 million households do business. Approximately, there are 5% of large enterprises equivalent 40,000 enterprises. If each enterprise has only one OS officer, so the total number of OS would be 40,000. It is assumed that each year 2 universities (University of Trade Union and Ton Duc Thang University) provide 200 graduates of labour protection Bachelors/OS engineers. From 1992 up to now, there would be about 5,600 trained OS engineers. So, the training capacity of two universities would increase 7 times to meet the actual demands.

To deal with the shortage of OS personnel, the environment engineers can also work as OS officers if they can attend the 8 months short course on HSE organized by the Center for

Occupational Safety and Environmental Technology (COSENT) under Ton Duc Thang University as mentioned above.

b/ Occupational health personnel (OH personnel)

The OH personnel engaged in the area of OSH have different backgrounds, multi-disciplinary backgrounds that include medical doctors (MDs) (e.g. general, specialized MDs; MDs of Epidemiology and Preventive Medicine); doctor assistants; nurses; pharmacists; engineers (e.g. environment engineers, engineers of labor protection/occupational safety, chemical, physical engineers, etc.); bachelor/MPH/PhD. of public health, biologists, psychologist, bio-chemists, hematologist, multi-discipline technicians, etc.

In the Part 3, there is a list of all training institutions with graduate and post-graduate training programs for OSH personnel in general and OH personnel in particular.

*** Medical Doctors specialized in occupational disease**

As mentioned in Part 3 too, there is no any university of medicine and pharmacy that train physicians/doctors specialized in occupational health. To become occupational health physicians/ doctors, it should be fulfilled the followings conditions:

- Being medical doctors (general, specialized MDs, MDs of Epidemiology)
- Working experience at least 3 years in clinics
- Having certificate of occupational disease (see Item 3.7.1 for more details of training program: attending the training course on occupational disease for 3 months in the National Institute of Occupational Health or 9 months in Institute of Preventive Medicine training and Public Health of Hanoi Medical University. However, from 2020, there is no more the 9 months course)

For training PhD. in occupational health, the training institutions are the National Institute of Occupational Health (NIOEH), the National Institute of Epidemiology and Hygiene (before 2015), Army Academics (before 2015). Subjects for PhD. training are with background of general and specialized MDs, except MD specialized in preventive medicine, MSc. in preventive medicine, Specialized MD degree I and II. There is no number of trained PhD in OH over the country. In NIOEH, three PhDs in OH have just got diploma.

There is no updated data on OH personnel nationwide. According to the annual OH report by VHEMA, MOH, in 2015, total number of OH staffs over the country was 1,796 people. These data were collected from 55 Provincial/City Centers of Preventive Medicine, 8 Centers for Protection of workers' Health and Environment and 13 Health/Occupational Health Centers at Industrial Branches/sectors. There were 285 medical doctors involved in OH activities, e.g.

working environment monitoring, health care for workers, periodic health examination, OD detection and diagnosis, etc. So, in average there were 4 medical doctors per center working in OH area. The number of centers with more than 5 doctors was mainly concentrated in provinces with developed industries such as Hanoi, Ho Chi Minh City, Vinh Phuc, Dong Nai, Quang Ninh, Bac Ninh, etc. Many provinces had only a few doctors, even some provinces do not have any doctors in charge of occupational health. Meanwhile, work-related diseases evolved silently, so early detection depends a lot on the qualifications of doctors and the results of working environment monitoring, periodic health checkup, and occupational disease examination. In addition, in 2015, there were 50 occupational disease clinics established at 55 Provincial/city Preventive Medicine Centers, 8 Centers for Protection of workers' Health and Environment and 8 Health/Occupational Health Centers at Industrial Branches. It means that not every province has occupational disease clinic where can do OD detection, diagnosis and examination. In Nov. 2020, VHEMA of MOH announces the list of 65 organizations having licenses to examine and treat occupational diseases, in which there 28 provincial CDCs among 63 provinces and 4 Health Centers of Industrial Branches/Sectors among 13 ones. The estimated rate of employees involved in occupational disease detection in 2019 was only 8.1% (see Part 4, Item 4.2.2.1). So, it needs more MDs specialized in occupational disease while the number of training institutions in this area is very limited.

The Part 3, item 3.9.3 analyzed the shortage situation of medical staffs working in preventive medicine facilities at different levels including OH staffs. Analysis of the need to increase human resources by level shows that for the central level is 1,018 (accounting for about 4.3%), at the provincial level 5,340 (accounting for 22.4%) and at the district level 17,508 (accounting for 73.5%). Analyzing according to the structure of the training area and the training level, it can be seen that the demand for medical and pharmaceutical staff is about 77.6%, for the other backgrounds about 22.4%. More specifically: The need for medical doctors / preventive medicine is about 33.8%; for public health bachelor about 16.7%; for bachelor's medical testing about 5.3%; about 4.8% for intermediate technicians, about 5.9% for midwives, 4.6% for university pharmacists, 3.8% for intermediate pharmacists; While human resources at medical secondary level have the demand to decrease at rates appropriate to each facility, especially for units at the provincial level. For other backgrounds, including staff of biotechnology, environmental technology, analytical chemistry, bachelor of economics, information technology, sociology ... the number of human resources is about 5300 people, accounting for 22.5% of the total number of on-demand deprivation, of which the highest concentration is in university

graduates, accounting for 57% of the total number of additional needs in this group. So, the OH personnel is lack both in quantity and quality

Regards training MDs specialized in preventive medicine, it can solve the shortage of MDs at different levels as analyzed above. According to Table 2. 13. Health professions graduates in university 2013-2018 in Part 2, each year, from 2013-2018 in average about more than 3000 MDs specialized in preventive medicine were graduated from university of medicine. These preventive medicine doctors can work in preventive medicine system, e.g. preventive medicine Institutions, Provincial/city Preventive Medicine Centers (now changed to Centers for Disease Control, CDCs), Centers for Occupational Health and Environmental Protection and Health centers/Occupational Health Centers at Industrial Branches. However, preventive medicine MDs cannot be involved in health examination and treatment in general according to the Law of Medical Examination and Treatment. In Oh area, they cannot be involved in health check-up and OD detection and diagnosis in special. So, they cannot become MDs specialized in ODs, just can provide another OH services, e.g. working environment monitoring, etc. As a results, it need to develop a special curriculum for training MDs specialized in OD in university of medicine like in other countries, such as Japan, US. and European countries, etc. to deal with the shortage of these personnel.

*** Occupational Hygienists:**

For occupational hygienists, there is no any university that trains this specialization. If any OSH personnel want to be involved in the working environment monitoring, they need to attend the 1 month course of working environment monitoring (see Item 3.7.1 for more details of training program). The training institutions that are certified by MOH, are 3 Institutions of the preventive medicine system (the National Institute of Occupational and Environmental Health (NIOEH), the Institute of Public Health (Ho Chi Minh City), the Nha Trang Pasteur Institute.

There is no data of the number of occupational hygienists or OH personnel involved in working environment monitoring (WEM) nationwide. But, there are 159 organizations capable doing working environment monitoring over the country according to the announcement of VHEMA. And these organizations just do WEM in less than 10% among total number of enterprises in Vietnam while currently the country has about 800,000 enterprises, production and business establishments, of which more than 95% are small and medium enterprises and 2.3 million households do business. The enterprises that are monitored working environment are mostly the large scale enterprises. So, to meet the demands of doing WEM covering in all enterprises as regulated in OSH Law, it need a huge number of trained occupational hygienists

while the number of training institution is limited. It would be better if the universities, schools and colleges that train engineers/bachelor/master/Ph.D. in the environment, environmental technology, monitoring, and testing, etc. can be involved in training occupational hygienists.

*** Occupational health staffs working at enterprises**

For health staffs working in the health unit/center at enterprise, they need to attend the certificate training course on occupational health (see more details in the Item 3.7.1). The training institutions are certified by MOLISA according to the requirements of training these personnel as stipulated in Gov. Decree No 140/2018/ND-CP dated 8 Oct. 2018 on amendment of some articles of OSH Law related to OSH training.

There is no nationwide data on the number of medical staffs working at enterprises. According the annual OH report by VHEMA 2016 from 57 /63 provinces over the country, the total number of enterprises under their management was 71,082, in which the number of enterprises with more than 200 employees was 7,242 (accounted for 10.2%), enterprises with from 51-200 employees was 8,715 (12.3%) and the enterprises with less than 50 employees was 55,125 (77.5%). Among these enterprises, there were 8,291 enterprises (accounted 11.7%) having medical staffs, in which 3,815 enterprises had health centers (5.4%), 33 had hospitals (0.05%), 145 had clinics (0.2%), 2,478 enterprises had contracts with other health care facilities (3.5%) and the rest of 1,746 ones had medical staffs/units (2.4%). Number of medical staffs working in 8,291 enterprises was 11,223, in which medical doctors were 1,347 (12%), MDs specialized in preventive medicine were 203 (1.8%), university nurses: 680 (6%), doctor assistants: 4,975 (44.3%), college nurses: 2,371 (21.1%) and midwives: 724 (6.4%).

Most of enterprises that have medical staffs working in, are the large state and foreign investment companies that can hire medical doctors, assistant doctors, nurses, etc. because they can pay high salary while in private and medium size enterprises cannot. There is no problem for these personnel to get the certificate of training on occupational health. However, there is limited number of training institutions. According to the data of the certificate training course on occupational health for medical staffs at enterprises organized by NIOEH from 2017 to 2019, total number of medical staffs certificated in OH was 1,172 (Table 4.17). In addition, in the Part 2, the Table 2.10 showed in 2013, the number of health employees working in all health facilities was 382,348, in which medical doctors were 16% (more than 61,000 MDs) and health employees working in other facilities (assumed health units/stations at enterprises) was 5,012 (accounted 1.3% in total). While table 2.13 showed the number of Health professions graduates in university in 2013 was 70,477, in which medical doctors were 37,114.

Currently the country has about 800,000 enterprises, production and business establishments, of which more than 95% are small and medium enterprises and 2.3 million households do business. If it is estimated that 5% of enterprises are the large scale ones. It means that currently there are about 40,000 enterprises that should have medical staff. If each enterprise has only 1 medical staffs, it needs 40,000 medical staffs certificated in OH. As a result, it demands more number of training institutions in OH certificate as well as more medical students graduate from medical universities, schools and colleges.

****Other OH personnel working in the medical testing and environment analyzing laboratories***

For working environment monitoring, health checkup as well as OD detection, diagnosis, there are a number of OH personnel who work in the medical testing and environment analyzing laboratories. They have multidisciplinary background. For some basic knowledge and skills they are studying at the university/school/college while for the professional ones, they have to study during working or attending a short courses. There are no special requirements by regulation on such types of trainings

5.3.2. Recommendations of action points for personnel engaged in the area of OSH

a/ Occupational safety personnel (OS personnel):

- Continuing to develop and complete textbooks on OSH or OSH components to be taught in the system of universities, colleges, professional secondary schools and vocational training.
- Expanding training this specialty to other universities and colleges related to environment technology and sciences
- Increasing number of graduate and postgraduate students in OS or HSE to meet the actual demands
- Modification of existing training program on OS so that to fit in HSE international training
- Development of HSE short course training program for OSH personnel or open the training code of HSE in universities and colleges

b/ Occupational health personnel (OH personnel)

**In the long term:*

- It needs to develop a training program/curriculum on occupational medicine in medical university/school/college and to open the training code of occupational medicine doctor, occupational physicians, occupational nurses, etc.

- It needs to integrate the training program on occupational hygiene in the training program for environment engineering, environment technology and sciences, etc. or to open training code of occupational hygienist

*In the short term:

- Building capacity and expanding certificate trainings on working environment monitoring, occupational health and occupational diseases to other medical universities/schools/colleges and training institutions of preventive medicines
- Development of online courses

5.3.3. Support needs assessment of personnel engaged in the area of OSH from Japanese government

- Sharing experiences from Japan how to train OSH personnel
 - Support to develop or modify training curriculum and programs for OSH personnel
 - Sharing Japanese training programs and curriculum on occupational medicine, occupational hygiene, HSE, etc.
 - Support needs assessment of personnel engaged in the area of OSH from Japanese government.
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分担研究報告書

ラオスにおける安全衛生の取り組み促進の支援に係る
実態およびニーズ調査

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分担研究報告書

ラオスにおける安全衛生の取り組み促進の支援に係る 実態およびニーズ調査

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研究要旨

日本のラオスに対する労働安全衛生推進に係る支援のニーズを把握するため、同国の労働安全衛生の実態とニーズを把握することを目的に調査をおこなった。調査は、同国における労働安全衛生の専門家である Dr. Vanphanom Sychareun (Faculty of Public Health, University of Health Sciences, Lao PDR)に委託し、提出された報告書をもとにインタビューを行うことで、実施した。

ラオスの人口は約 730 万人であり、近隣アジア諸国の中で人口密度が低く、また若年層が多いことが特徴である。近年、徐々に軽工業が増加しているが、依然として農業に従事する人口が過半を占めている。公的医療サービスも徐々に充実し、小児死亡率は大きく改善しているが、依然として5歳未満の子供の栄養不良など、多くの公衆衛生上の課題を抱えている。

労働安全衛生に関して、労働社会福祉省の主導のもと、他の省庁とも分担して推進されている。2005年に第1次5か年計画以降、労働安全衛生の国家戦略が策定され、また労働法のもとで労働安全に関する政令が出されている。しかし、独立した労働安全衛生法の制定に至っていないこと、監督官が大きく不足していること、労働安全衛生の専門家の育成の仕組みが未整備であることなどの様々な課題が存在する。また、職業病報告および統計制度が未整備であるため、労働安全衛生上の課題が十分に把握されていない。

したがって、Country profile の充実や、課題の把握に応じて労働安全衛生法や関係法令の制定といった基盤整備における日本からの貢献の可能性が存在する。また、労働安全衛生の専門家や事業場内の担当者育成システムの整備を目的として、日本の専門教育機関に中長期の派遣を受入れて専門家育成を図り、それ基盤として教育研修プログラムの開発を支援するなど、人材育成分野においては大きな貢献の可能性がある。

研究協力者

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A. 目的

ラオスにおける労働安全衛生の現状とニーズを把握することを目的に、ラオスの労働衛生関連の行政機関、法体系、労働衛生活動を担う専門人材、医療保険制度および労災補償制度について調査を実施した。

B. 方法

当初は、文献調査を行って日本国内において入手可能な情報(現地の法令や行政機関、現地の医療制度や公衆衛生に関する情報の一部)を収集したうえで、現地を訪問して、事前調査で得られた情報の確認と、現地の労働安全衛生の実態把握を目的としたインタビュー調査を実施す予定であった。

しかし、COVID-19 のパンデミックによって現地訪問が困難な状況であったため、現地専門家に調査項目を明示して調査を委託したうえで、Web 会議機能を用いて内容の確認および支援ニーズに関する議論を行った。

1. 現地調査

調査項目は、国の情報、医療と公衆衛生、労働安全衛生の枠組み、労働安全衛生のレベル、分析と行動計画の5つの大項目に対して、全体で34中項目、74小項目からなるチェックリストを作成した。(添付1)

ベトナムにおける調査を実施するにあたって、現地のネットワークと専門知識を有する適任者を機縁法で選定した。(添付2)

調査期間は、2020年10月9日～12月19日とした。

2. Web 会議の開催

2021年1月25日に、研究代表者、研究分担者および研究協力者が全員参加し、Web 会議を開催した。予め質問事項を現地

専門家に送付したうえで、項目に沿って議論を行った(添付3)。

聴取した主な質問項目は、以下の通りである。

- OSH カントリープロフィールの作成計画と進捗状況
- OSH 関連法の運用上の課題および今後の法体系の整備に向けた議論
- 優先的に取り組むべき労働者の職業性疾患や健康問題
- 職場に配置する OSH 専門家の職種等の方向性
- 各 10 年間に多国から受けた OSH 分野の技術支援
- 推奨するアクションプランの優先順位

C. 結果

調査は、Google Scholar、MEDLINE、PubMed、WHO や ILO のウェブサイトなどの様々な検索エンジンを用いた文献レビューに基づいている。さらに、ラオスにおける OSH に関わるステークホルダーの範囲と役割・責任を理解するために、主要情報提供者へのインタビューを実施した。インタビューには、ILO、WHO、労働省、労働省社会福祉省、ラオス商工会議所、ラオス労働組合連合会、公衆衛生省、保健省、国家社会保障基金(NSSF)、NAFRI、商工省などからの参加者が含まれている。

委託した調査報告書(英文)については、別添する。調査結果の概要は、以下の通りである。

1 国の基本情報:

ラオスの人口は 7,304,508 人で、そのうち都市部の人口は 35.7% (2020 年の人口は 2,600,131 人)である。人口は 4 大民族(ラオス・タイ族、モネ・クメール族、チノ・チベット族、モン・ミエン族)で構成されており、最も多いの

はラオス・タイ族である。人口の 32%が 14 歳以下であり、ASEAN 諸国の中で最も若年層が多い。15～64 歳の労働人口が全体の 64%を占め、65 歳以上が 4%を占める。

経済的には、過去 10 年間の力強い経済成長と全体的な貧困レベルの低下により、ラオスは中所得者層の地位に向かっている。過去 10 年間の経済成長率は平均 7～8%で、アジアで最も急速に成長している経済国の一つとなっており、1人当たりの GDP は 2661US\$ (2019 年)となっている。しかし、最近では成長率の低下がみられる。農業部門は GDP の約 7%、製造業(11%)、電力・鉱業(18%)、建設・サービス(44%)を占めている。メコン川沿いの水力発電ダム、銅や金の採掘、伐採、建設など、注目されている外国からの直接投資が経済を支えてきました。しかし、これらのプロジェクトの中には、環境への影響について批判を浴びるものもある。農業部門は GDP への第 2 位の貢献者であるが、労働力の大半を雇用している(約 66%)のに対し、建設・サービス業(26%)、製造業(7%)、電力・鉱業(1%)と続いている。

2 健康システムと公衆衛生サービス:

医療制度は、1) 公的医療制度、2) 民間医療制度、3) 官民共同医療制度で構成されている。

同国は人口動態の転換期にあり、2019 年の平均寿命は 67.9 歳、合計特殊出生率は 2011 年から 2017 年の間に 6.3 人から 2.7 人に低下している。子どもの死亡率は大幅に改善しており、出生 1000 人当たりの 5 歳未満児死亡率も同様に低下傾向にあり、2016 年の出生 1000 人当たり 51 人から 2019 年の出生 1000 人当たり 34 人へと低下しています(MOH、2020 年)。妊産婦死亡率(MMR)は 206 (2016 年)から 2019 年には出生数 10 万人当たり 167 に減少したが、他の地域と比較すると依然として高い水準にある。しかし、5 歳未満

の子どもの栄養状態は依然として懸念事項であり、政府の優先事項でもある。例えば、5 歳未満の子どもの 32.5%が年齢の割に身長が低い(発育阻害)、20.5%が年齢の割に体重が低い(低体重児)となっている(2019 年)。

3 労働安全衛生の枠組み:

1) 労働安全衛生に関する法規制

ラオスは、MoLSW(労働・社会福祉省)のもとで国家の OSH 法規制の整備を進めている。1994 年と 2013 年に改正された労働法、2013 年と 2018 年に改正された社会保障法、2001 年 4 月 10 日付衛生・疾病予防・健康増進法 04/NA 号、鉱業法、1997 年 4 月 12 日付鉱業法 04-97/NA 号、製造法、国民議会合意第 01-99/NA 号の中に、OSH に関連する 8 つの法律とその他の OSH 規制が存在する。

- 1997 年 4 月 12 日付 04-97/NA 号製造業法
- 1999 年 4 月 3 日付国民会議協定第 01-99/NA 号
- 2009 年 12 月 16 日付建設業法第 159/PO 号
- 1999 年 4 月 3 日付工業加工法第 01-99/NA 号
- 1998 年 10 月 10 日付農業法第 01/98/NA 号

2) 批准したILO条約

ラオスは1964年以来、ILOに加盟している。ラオスは合計 10 本の ILO 条約を批准しており、そのうち 9 本は発効しており、非難された条約はなく、1 本は破棄され、過去 12 ヶ月間に批准されたものはない。

3) OSH に責任を有する当局または機関

労務管理部は労働社会福祉省(MoLSW)の下にあり、OSH の保護・予防を担当し、従

業員の代表はラオス労働組合連合、使用者の代表は全国商工会議所として、ここでは「三国間組織」と呼ばれ、労務管理部の主要なカウンターパートとなっている。これらとは別に、中央から地方自治体には、以下のような関連機関がある。

- 公衆衛生省
- 工業・商業省
- 公共事業・運輸省
- エネルギー・鉱山省
- 教育省
- 水資源・環境機構

現在、ラオスには 87 人の労働検査官がおり、そのうち 9 人が労働局に、13 人が首都ビエンチャンに、5 人がサバナケット、チャンパサック、ビエンチャン県、シャヤブイリ、ルアンパバーン、ルアンナムタ、ウドムクサイなど 7 つの主要省に、残りの 10 省に 3 人が配置されている。

4) 労働者災害補償保険と労働災害・疾病をカバーする社会保障制度

国会は新しい社会保障法を承認し、2019 年に改正した。これは、民間部門と公的部門のための既存の拠出型社会保障制度の調和を目指しており、正式な経済活動をしていない個人が自発的に拠出型のメンバーになることを可能にし、障害、病気、出産、老齢期の給付と一緒にヘルスケアへのアクセスを提供する。社会保障法は、10 人以上の労働者を雇用する企業に適用されるが、1 人以上の従業員を雇用するすべての企業に適用することが奨励されている。主な健康保険の給付には、外来、通院、救急、職業病による業務上の負傷の場合の医療が含まれている。

5) 職業病リスト

ラオスにおける職業病の全国リストは、ILO の職業病リストを用いて作成され、2010 年に改

訂された。ラオスにおける職業病全国リストは、ラオスにおける職業病の予防、記録、届出、補償を目的として作成された。職業病の分類は、1) 薬剤による疾病、2) 対象臓器による疾病、3) 職業性がん、4) その他の 4 つに分類されているが、職業病リストの実施は強化されていない。

6) OSH 管理のための職場組織

労働安全衛生委員会には、OSH 全国委員会と OSH 省庁委員会がある。全国 OSH 委員会は、MLSW の提案に基づいて内閣総理大臣が指名し、政策、法律、規則、規制の策定、監視、全国的な OSH の実施に向けた関係省庁、組織、その他の部門の支援を行う政府の事務局として機能する。州 LSW 部門の提案に基づき、州知事が OSH の州委員会を指名する。

4 労働安全衛生のレベル:

1) OSH に関する国の方針と戦略

ラオスの OSH は、広範囲の国家政策、戦略、計画によって規制されている。第 1 次国家 OSH 戦略(2005 年～2010 年)、第 2 次国家 OSH 戦略(2011 年～2015 年)、労働安全衛生に関する政令(2019 年 5 月 2 日付 No.22/Gov)、建設現場における OSH に関する閣僚決定(2013 年 8 月 21 日付 No.3006/MoLSW)などがある。

2) 労働災害と職業病統計

実際には、労働災害の記録と報告のための正式なシステムがない。OSH 令によると、OSH ユニットの労働災害と疾病を労働ユニットと労務管理当局に報告しなければならない。その記録、改善、解決策の模索を定期的に行わなければならない。

3) 報告と補償制度の適用範囲

社会保障制度では、社会保障制度への貢献度を維持している人の労災や負傷を補償している。労働災害が発生した場合、雇用主は負傷者を病院に連れて行き、SSO(社会保障機構)に連絡して記録を残さなければならない。また重傷の場合は、警察に連絡して報告しなければならない。しかし、報告は不完全であり、10人以上の従業員を抱えるすべての企業が負傷者を報告しているわけではない。2019年、SSOには2,287社の会員企業が含まれ、被保険者数は11万3,714人、任意保険者数は7087人であった。制度の対象となっている受益者(個人とその扶養家族を含む)の総数は25万8102人であった。

4) OSH 規制の法令遵守状況

労務管理部門、OSH委員会がOSH規則の遵守を統括しているが、遵守は一貫していない。

5) OSHに関する人材

OSH 訓練を提供している主な組織は、国立労働安全衛生センター(NOSH センター)、ラオス国立商工会議所(LNCCI)、ILO、ラオス労働組合連合会、産業・手工業省である。しかし、産業医、産業衛生士(occupational hygienist)、産業保健看護師などの長期訓練規定はない。

5. 現地専門家との議論を通じて得た情報

現在のラオスのカントリープロファイルの記載は十分ではなく、現在のところ、明確な作成スケジュールはない。OSH 関連法令について、政令レベルであり、独立した労働安全衛生法が存在しない。また、主に人材不足が原因で十分な施行ができていない。

労働者の健康問題に関して、職業の診断がされていないため、全体像が不明である。

石綿については研修が行われたが、十分な認識に至っていない。

職場における OSH 専門家の配置は、明確な規定が存在しない。セーフティオフィサーの配置を働きかけているが、トレーニングプログラムもなく、進んでいない。

これまで、韓国からカントリープロファイルの作成支援や、労働社会福祉省の担当者向け研修が行われた。その他の国からのサポートは現時点ではない。

推奨されるアクションプランのうち、労働災害や職業病のデータベースを作ることがまず必要である。また職場レベルでは、OSH に関連する委員会の設置・強化を働きかけることを進める必要がある。また、人材育成に関しては、数カ月～1年程度のトレーニングによって、核となる人材を要請することが大切だと思われる。

OSH に関連した医療職に関して、現在、ラオスには産業医や産業看護職がほとんどいない状況である。まずは、臨床医が研修を通じて職業病の診断技術を身に着けることの優先順位が高いと考えられる。

D. 考察

1) 行政機関、法体系および監督体制

① 現状の課題の整理

ラオスにおける労働安全衛生の枠組みは発展途上にある。その法体系は労働法や社会保障法の一部に労働安全衛生に該当する項目が付随しているが、職場で安全衛生を推進する者がいない、安全衛生委員会の設置がないなど不完全な内容であり、かつ法令に基づく対応も事業所で十分に施行されているとはいえず、それを監督する人材も不足している。また、労働安全衛生分野に関わる研究・教育機関が存在せず、この分野において十分な知識を有

する者が国内にほとんど存在しない。加えて、職業病リストを国として備えているものの、労働災害や職業病を診断、報告するシステムが存在せず、どのような対策が必要なのか検討するにあたって根拠とすべき基礎的データがない。このような背景には、ラオスにおける国家としての優先的課題で労働安全衛生が占める地位が相対的に低いことが背景にあると考えられる。

② 必要な支援

ラオスの労働安全衛生宣言において、目指すべき国家の安全衛生の枠組みが示されており、これを実現化するための具体的計画の作成を支援する必要がある。本宣言では、職場内の安全衛生推進者の雇用、事業所での労働災害防止対策計画の策定、安全衛生委員会の設置、リスクアセスメントの推進、有害物・化学物質の管理などの項目が掲げられており、これらの実現に向けた政労使における社会的対話の促進を支援する必要がある。また、その実現に向けたイベント啓発、関連出版物のラオス語訳、研修の実施なども足がかりとなると考える。

労働監督の強化に向けた監督官、労働安全衛生施策を検討できる行政官、企業内の労働安全衛生推進者を教育する研究者・教育者を育成する必要がある。

また、労働災害や職業病を診断、報告するシステムの構築を通じた基礎データの収集とそれを通じた労働災害防止 5 年計画の更新が急務である。5 年計画は第 2 次 (2011-2015) が最後となっている。特に、労働災害、職業病の報告、認定・審査、治療・補償、監査といった一連の運用を検討するにあたって、日本の経験の共有や訪日見学など期待される役割は大きいと考える。日本の知見を踏まえて、役割行政、医療機関、使用者団体、労働者団体などの関係者が学習し、今後のあるべき姿について意見集約するようなプロセスを提供できると

望ましい。

2) 事業所の労働安全衛生管理体制

① 現状の課題の整理

社会保障法に基づく労災補償を実施している企業は外資の大規模事業所に限られており、特に 10 人未満の現地零細企業においてはほとんど労災補償に結び付いているケースがないことから、外資系企業を除く大多数の雇用者は安全衛生に対する意識が高くないと考えられる。それにともない、安全衛生委員会、年間計画、各種の取り組みは実行されていないもしくは形骸化している事業所が多いと想定される。特に、職場の有害物質管理や安全対策を持続的に推進するための PDCA サイクルに基づく継続的な運用を導入できていないことは優先的に解決すべき課題である。

また、職場内に安全衛生を推進する者がいないのみならず、各州において安全衛生を支援する公的・民間の外部資源が限られている。職場内で安全衛生対策を推進するにあたって、専門人材が限られる中でどのように進めていくのか検討を要する。

② 必要な支援

雇用者の安全衛生に対する意識を啓発し、事業所における安全衛生ポリシー、組織体制、PDCA サイクルを円滑に実行するための支援が必要である。具体的には、労働者参加に基づく安全衛生ポリシーの策定、リーダーシップをもって労働者の安全と健康を確保するための組織体制の整備、労使が協調して運営する安全衛生委員会の設置である。これらの体制づくりを通して、PDCA サイクルを循環させていく必要がある。そのためには、安全衛生を管掌する雇用主、管理者に対して、これらの体制づくりに向けたワークショップを各地で開催する

必要がある。外資系企業の中には現地のサプライチェーンに対して、監査やこれらの体制づくりの支援を通して公正な取引を推進している企業もある。現地の日系企業に対して、公正な取引に向けたノウハウを共有するイベントの開催が足がかりとなると考える。

3) 労働安全衛生の専門人材

① 現状の課題の整理

産業医、保健師、インダストリアルハイジニストなどの専門職を養成する教育機関がラオスには存在しない。そのため、職場内においては短期的に従業員の中から安全衛生推進者を任命し、短期トレーニングを施すなどの対応が必要であるが、関係団体が実施する一般労働者向けのトレーニングの開催頻度は十分ではない。監督官においても、監督作業に対する定期的な教育は施されておらず、また職業病や職業性関連疾患を正確に診断できる医師もいない。

② 必要な支援

まず、労働者が自主的に安全対策や職場環境改善活動を行い、かつ労災発生時には適切に報告、対処できるよう関係団体が実施する一般労働者向けの研修を拡充し、多くの職場の労働者が参加できるようにする必要がある。併せて、労働安全衛生に関する情報をウェブサイト、ソーシャルメディア、冊子、ポスターなど複数のチャンネルから配信し、労働者自身の安全衛生に関する意識を啓発することで、研修の必要性の理解と周知を行うことを忘れてはならない。

次に、従業員の中から任命された安全衛生推進者に対して実施する 1-2 週間の短期トレーニングコースを開設し、年間計画の策定や安全衛生委員会の運営、リスクアセスメント等

の各種対応でリーダー的存在を果たせるよう教育支援する必要がある。

また、医師に対して、職業病の理解と診断スキルを向上させるトレーニングを施す必要がある。まずは大学教育カリキュラムにこれらの項目を盛り込むことが足がかりとなる。

次に、産業医、保健師、インダストリアルハイジニストなどの専門職や監督官向けの 3-6 ヶ月間の教育研修プログラムを開発する必要がある。例えば、核となるべき人材に対して、日本の専門教育機関に中長期の派遣を行い、これらの者を中心に教育研修プログラムを開発していくなど、この分野において日本に期待される役割は大きいと言える。

E. 結論

ラオスは労働安全衛生の法令や専門人材といった基盤の整備が十分でなく、日本からの支援によって同国の労働安全衛生の向上に貢献する余地は大きいと考えられる。

F. 引用・参考文献

付属資料のとおり

G. 研究業績

なし

H. 知的所有権の取得状況

なし

添付1 調査チェックリスト

添付2 現地調査者のプロフィール

添付3 Web 会議における質問事項

添付4 ラオス調査報告書 第3～5章(日本語訳)

付属資料:ラオス調査報告書(英文)

A check sheet for collecting information for support needs assessment of occupational safety and health (OSH) in Asian countries

Primary items	No	Secondary items	Examples of secondary items
I. National information	1	History	1.1.1 Summary of country history
	2	Religion and Ethnics	1.2.1 Number and percentage of religion and ethnics (including regional characteristics) 1.2.2 Lifestyles and dietary restriction for culture and religion
	3	Population	1.3.1 Current number of population, population transition, and population pyramid 1.3.2 Demography, literacy and other relevant information
	4	Politics and Policy	1.4.1 Current political system 1.4.2 Current political party and results of a recent election 1.4.3 Main national policy and political challenges
	5	Constitution and General Law System	1.5.1 Summary of constitution 1.5.2 Summary of general law system
	6	Industry and Economy	1.6.1 Major industry 1.6.2 Economic status and employment scene
	7	Labor-Management Relations, Contractors, Informal Sector Workers, and Migrants	1.7.1 Labor dispute and other labor-management relations 1.7.2 Trend of contractors, informal sector workers and migrants (international and domestic)
	8	Public Security, Disaster and Public Safety	1.8.1 Current status of security issues such as crimes and riots, occurrence of natural disasters and traffic accidents, etc.
	9	Relationship with Japan	1.9.1 Relations with Japan in politics and economy 1.9.2 Local status of Japanese companies operation 1.9.3 Status of Official Development Assistance (ODA) by Japanese government
II. Healthcare and Public health	1	Status of Public Health, Disease, and Cause of Death	2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.
	2	Training and Supply for Physicians and Healthcare Professionals	2.2.1 Educational system for healthcare professionals 2.2.2 List of universities for healthcare professionals 2.2.3 Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians).
	3	Status and Quality of Healthcare	2.3.1 Status of healthcare settings (number and national/private) 2.3.2 Monitoring and evaluation of quality of healthcare (including international accreditation and certification).
	4	Status of Public Health Agency	2.4.1 Status of public health center and relevant agencies, such as WHO office and other international organizations
III. OSH framework	1	OSH Laws & Regulations	3.1.1 Major OSH laws & regulations and recent amendments 3.1.2 Other related legislations on safety, health and environment, and recent amendments 3.1.3 ILO conventions ratified.
	2	Mechanism and Status for Law Enactments	3.2.1 Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities)
	3	Authority or Body, Responsible for OSH	3.3.1 Authority or body, responsible for OSH
	4	Mechanisms for Ensuring Compliance including the System of Inspection	3.4.1 Number and inspection status of labour inspection office 3.4.2 Utilization of private agency for inspection 3.4.3 Reporting and notification system for workplaces
	5	Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases	3.5.1 Workmen's compensation insurance and social security schemes 3.5.2 Approval standards for occupational injuries and diseases 3.5.3 Occupational disease list
	6	Workplace Organization for OSH Management	3.6.1 Workplace organization for OSH management by regulations 3.6.2 OSH committee 3.6.3 OSH training at workplaces
	7	Personnel engaged in the area of OSH	3.7.4 Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists 3.7.5 Minimum staffing standards for personnel engaged in the area of OSH
	8	Regal Requirements for Workplace Activities for OSH Management	3.8.1 Regal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc. 3.8.2 Mechanisms to prevent industrial disaster protect environment and promote public safety
	9	Education and Supply for Personnel engaged in the area of OSH	3.9.1 Educational system and contents for personnel engaged in the area of OSH 3.9.2 List of universities and training institute 3.9.3 Supply and availability for personnel engaged in the area of OSH
	10	Activities and Involvement by International Organizations, Academic Insistutes and Non-Governmental Organization	3.10.1 OSH activities and involvement by international organizations, academic insistutes and other agencies, such as Non-Governmental Organization
	11	Occupational Health Services including Industrial Hygiene	3.11.1 List of occupational health service providers and their service contents and quality (national/private)
	12	Support Mechanisms for Disadvantageous Group of Workers	3.12.1 Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors
IV. OSH level	1	National Policy and Strategies for OSH	4.1.1 Conditions, details and operational status of national policy, strategies and plans for OSH
	2	Occupational Injury and Disease Statistics	4.2.1 Occupational injury and disease statistics 4.2.3 Coverage by reporting and compensation schemes and estimated occupational injury and disease
	3	Legal Compliance Status	4.3.1 Legal compliance status for OSH regulations
	4	Problems concerning OSH and Exposure to Specific Hazards	4.4.1 Problems concerning OSH in all and specific industries 4.4.2 Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries
	5	Measures against Problems concerning OSH	4.5.1 OSH policies and programmes of organizations of employers and workers 4.5.2 Advantages and disadvantages of ongoing activities related to OSH at workplace 4.5.3 Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace
	6	Researches in OSH	4.6.1 List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH 4.6.2 Main research items and projects in OSH research and which institutions implement these (national level / institutional level)
	7	Status for Personnel engaged in the area of OSH	4.7.1 Ability and challenges of personnel engaged in the area of OSH 4.7.2 Training and information for OSH personnel engaged in the area of OSH
	8	Status for International Certification at Workplaces	4.8.1 Status for international certification at workplaces (e.g. ISO 45001)
	9	Worker's Awareness and Educational Levels regarding OSH	4.9.1 Worker's awareness and educational levels regarding OSH
V. Analysis and action plan	1	Gaps analysis of existing national OSH systems and Recommendations of Action Points	5.1.1 Gaps analysis of existing national OSH systems 5.1.2 Recommendations of action points for national OSH systems 5.1.3 Support needs assessment of national OSH systems from Japanese government
	2	Gaps analysis of current OSH Management at workplaces and Recommendations of Action Points	5.2.1 Gaps analysis of current OSH management at workplaces 5.2.2 Recommendations of action points for OSH management at workplaces 5.2.3 Support needs assessment of OSH management at workplaces from Japanese government
	3	Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points	5.3.1 Gaps analysis of existing professional education for personnel engaged in the area of OSH 5.3.2 Recommendations of action points for personnel engaged in the area of OSH 5.3.3 Support needs assessment of personnel engaged in the area of OSH from Japanese government

調査委託者

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Interview contents for the interview

Priority issues

1. Although the National Policy and Strategies for OSH exist in Laos, how is a plan and progress on drafting a National OSH Profile?
2. Although the labour law covers OSH issues in Laos, is there any discussion to develop the independent OSH law?
3. Regarding occupational disease, most cases are underreported currently. Although the GBD2016 estimates the great number of ARDs death, what kinds of occupational disorders and health issues do you think should be prioritized problems in Laos based on your experience?
4. Currently, the framework of OSH specialist in the workplace is vague. Which occupations or what background do Laos plan to assign in the framework for the workplace OSH activities in the future?

Previous support

5. What kind of technical supports has been conducted from other countries in the last decade? (Country, details, background and status of implementation, impacts and challenges)

Strategy to provide support

6. Regarding University of Health Sciences, this institute has provided the Master of Public Health program. I considered that this university will be a key partner for our future academic collaboration in Laos. Do you know any researchers who are in charge of occupational health and safety module?
7. XXXX

Questions from the report

8. I cannot find the following information at the labour law (GoL, 2013). Would you share with me the source and more details on this topic? Especially in, the requirements for assignment of OSH specialists and their roles and activities in the workplace.

3.7.3 Minimum staffing standards for personnel engaged in the area of OSH

As well as in the Article 28, Occupational Safety and Health Specialist each labor unit with 101 to 1000 employees must have an OSH specialist, particularly occupational physician/doctor, nurse, hygienist, engineer either as a full or part time. For labor unit,s with more than 1000 employees, the employer must hire one full time OSH specialist. However, this minimum staffing standard had not been inspected and there is no data has been collected

on how many employees responsible for labor health and safety are currently working and applying in OSH.

9. XXXX

第3章 労働安全衛生の枠組み

3.1 OSH 法規制

3.1.1 主な OSH 法規制と最近の改正点

ラオス国内では OSH 法規制の改正が進められている。MoLSW の下で発行された OSH に関する法令は以下の通りである。

1. 労働法 (1994 年公布、2013 年改正)
2. 社会保障法 (2014 年、2018 年改正)
3. 衛生・疾病予防及び健康増進法 (平成 13 年 4 月 10 日付 第 04/NA 号)
4. 鉱業法 (1997 年 4 月 12 日付 第 04-97/NA 号)
5. 製造業法 (1999 年 4 月 3 日付 国民議会協定第 01-99/NA 号)
6. 建設業法 (159/PO 号 平成 21 年 12 月 16 日付)
7. 農業法 第 01/98/NA 号 1998 年 10 月 10 日付)
8. 工業処理法 (第 01/99/NA 号 1999 年 4 月 3 日付)

1. 労働法:

同法は、社会における労働の質と生産性を向上させるために管理、監視、労働能力開発、採用、労働保護に関する原則、規制、措置を定めており、従業員と使用者の権利、正当な利益、生活の継続的改善を目的とした近代化と産業化への転換を確実にし、投資の促進、国家社会経済の発展、地域と国際的な連携に貢献している。OSH に関する法制上の枠組みは、第 8 章 労働安全衛生、第 1 章労働安全衛生の保護 (第 117 条～126 条) 及び第 2 章労働者の事故及び職業病 (第 127 条～129 条) で議論されている。また、第四節：労働者の保護、第一章：労働規制 (第 51 条～53 条) では、OSH に関することが述べられている (NA, 2013a)。

2. 社会保障法

社会保障とは、健康管理、労災、職業病、出産、病気、無効、年金、死亡、遺族給付、失業などの各資格条件に定められた場合に、基本的な生活を保障するために、社会保障基金から給付を受ける本人や家族が保障されるものである。

第四部 企業部門・任意保険被保険者の社会保障給付 第二章 雇用災害・職業病給付 (第 45 条～46 条) (NA, 2019 年)。

3. 衛生・疾病予防及び健康増進に関する法律

衛生、疾病予防および健康増進に関する法律 (The Law on Hygiene, Disease Prevention and Health Promotion) は、法務省法律キャンペーン・流通部と協力して MoH が発行したもので、2001 年 4 月 25 日付けのラオス人民共和国大統領令第 49 号 (Decree No. 衛生、疾病予防および健康増進に関する 2001 年 4 月 10 日付国民議会議長令

- ・ 第 18 条：職場の衛生

職場の衛生とは、工業、農業、手工業等の労働者の健康保護を中心とした労働条件に配慮することを指す。労働者は、労働者及びその家族の健康や生命に有害な疾病、化学物質等から保護されなければならない。

使用者は、良好な採光、換気等の作業場の衛生を十分に確保することを含め、労働者のために個人防護具を提供しなければならない。温度、相対湿度、騒音、悪臭、粉塵は、規則に記載されている許容基準を超えてはならない。

労働者は、労働法に記載されている規則に従って、特に危険な部門で働く労働者のために、健康診断および治療を受ける権利を有するものとする。

- ・ 第 20 条：建設現場および修理工場における衛生管理

建設現場および修理工場における衛生とは、道路、建物の建設及び住宅の修繕その他の活動において、必要な措置及び方法を実施することをいう。この実施は、安全性を確保するために衛生規定を満たしていることが必要であり、作業員や近隣の地域社会、地域を移動する人々の健康や生命に危険が及ばないようにすることが求められる。

建設現場および修理工場の安全、衛生および利便性を確保するために、使用者又は管理者は、安全標識やフェンスを設置したり、網やネットを使用して現場を覆ったり、建設資材を粉塵から保護するために現場に水をかけたりしなければならない。

4. 鉱業法

- ・ 第 42 条 鉱業事業を営む起業家の責任

第 6 章：労働者の福祉、健康、安全を確保することを含め、ラオス人労働者の技術分野における訓練と更なる資格を確保する。

- ・ 第 45 条：技術と技術の基準。

鉱業活動を行う場合、許可された者は、環境に奉仕する能力と安全性を保証するために、国際基準を満たし、工業・手工業省及びその他の関係当局によって承認された適切な技術及び技術を使用しなければならない(NA, 1997)。

5. 製造業法

第二章 工業及び手工芸部門における製造業

- ・ 第 14 条：工場の性能の条件

履行許可を受けた工場は、合意された目標に沿って操業活動を開始しなければならない。また、製品の品質と標準を確保し、安全衛生と工場環境に関する規制を遵守しなければならない。

グループ V：環境保全。

- ・ 第 20 条：環境保全の措置。

工場活動の確立と遂行は、輸送、騒音、光、色、有害、毒物、粉塵、煙、振動、温度、相対湿度などの社会と環境への影響を回避または低減するような方法で行わな

ればならない。また、有毒化学物質の輸送および使用は、環境保全の規制および工業・工芸省の規制に従わなければならない。

第四章：製造者の権利と義務

・第 42 条 製造者の義務。技術訓練の提供、労働者の賃金、福祉、健康、安全の確保を含むラオス労働者の地位の向上。

6. 建設業法

第 6 章 建設事業の実施

・第 34 条 安全のための予防

一般的な場合の安全防止は、関連するセクターの規則に従った対策を使用しなければならない：例えば、警戒信号、建設現場の周囲のフェンス、労働者のための保護ツール：ヘルメット、靴、手袋、眼鏡など。

建設プロジェクトの実行中に不可抗力が発生した場合、例えば、洪水、暴風雨、火災、地震、土砂崩れ、または建設プロジェクトの操作に影響を与えるその他の大災害が発生した場合、請負業者は、次のように予防措置とタイムリーな解決策を持っているなければならない。

1. 1. 工事現場に警報を出す。
2. 2. 一時的に建設を停止し、合理的な手段を使用して合理的に解決するために、労働者の安全を確保し、建設プロジェクトの資産を保護する。
3. 3. 緊急にプロジェクトの所有者にイベントの報告、関連する役員、地域の管理をタイムリーに解決するための措置を持っているためです。

7. 農業法

第一章 総則 第六条 環境の保全

農業活動を行う個人又は団体は、環境を保全する義務を負う。

第二章 農業事業

第 10 条 農業経営者、第 10 条：農業経営者の権利と義務：義務。

- 農業生産中に他人や環境・天然資源に困難を生じさせてはならない。
- 技術的安全対策を実施すること。
- 農業検査のために経営者に協力すること。

第五章 環境の保護

第 65 条、第 66 条、第 67 条は、環境、人的資源を保護するための方法を策定する。

第 65 条：社会環境と自然環境は、人、動物、地球、水、森林、空気を含む、保護されなければならない。

第 66 条：農薬を使用し、保管する際には、その悪影響を防ぐために注意を払わなければならない。

第 67 条：家畜の環境保護措置

家畜は適切な場所で飼わなければならない。家の下や（水の）湧き水などの近くにあってはならない。人間と環境を守るために、定期的に衛生管理をしなければならない。

・ ラオスにおける農薬の管理に関する規則

この規則は、人、動物及び植物の健康及び環境を保護し、ラオスが契約当事者である国際的な義務及び規則と調和するために、ラオスにおける農薬を含む活動を管理するための原則、規則及び措置を定めている（Ministry of Agriculture and Forestry, 2010）。

第 23 条 農薬の使用

農薬を使用しようとする者は、その特性を認識し、次の事項に注意しなければならない。

1. 総合的な防除を行い、天敵を利用した防除を優先する。
2. 農薬を適正に使用し、ラベルに記載されている通りに使用すること。
3. 農薬を適用するときにはいつでも保護具を着用してください。雇用者は、従業員に農薬散布の適切な機器とトレーニングを提供すべきである。
4. 人の健康、動物、環境に対する農薬の有害な影響を防止するために必要な措置が取られていることを確認する。
5. 農薬に関わる事故で、専門家の援助を必要としたり、人の健康や環境に脅威を与えるようなものは、直ちに関係当局に報告しなければならない。

・ 第 24 条 農薬の廃棄

規格外または偽造の農薬、使用期限切れの製品、または空容器を含む農薬廃棄物は、環境にリスクを与えることなく、承認された埋立地に適切に廃棄または埋設すること。場所は、水資源、井戸または地下水から遠く離れた平坦な場所で、水資源環境庁（WREA）が定める技術的なガイドラインに従うこと。

3.1.2 安全、健康、環境に関するその他の関連法令および最近の改正点

現在利用されている政府の労働安全衛生規則は以下の通りである：

・ 労働・社会福祉省（労務管理局、2020年）

1. 労働安全衛生に関する政令（第 22 号/平成 29 年 2 月 5 日付/政府）
2. ラオスにおける疾病採択に関する合意書（2018 年 8 月 16 日付 No.3002/MoLSW）
3. 青年社員の使用を禁止する危険業務の特定に関する大臣決定（2016 年 11 月 23 日付第 4182 号/MoLSW 号）
4. 労働検査に関する合意書（2016 年 12 月 5 日付 第 4277 号/MoLSW）
5. (MoLSW)の検査官および責任機関の任命の指示（2015 年 5 月 21 日付 OSH 第 2159 号/MoLSW）
6. 建設現場における労働安全衛生に関する大臣の決定（2013 年 8 月 21 日付けの 第 3006/MoLSW 号）

7. 州レベルとビエンチャン首都の OSH 検査員委員会の組織と実施に関する合意 (2010 年 8 月 20 日付 第 181818 号/MoLSW 号)
8. 中央レベルの OSH 検査委員会の組織と実施に関する合意書 (2009 年 9 月 8 日付 第 4321 号/MoLSW)。

- 工業・商業省

1. 化学物質管理法 (改正) (第 07/NA 号、2016 年 11 月 10 日発行)
2. 工業物質・化学物質管理に関する決定(第 1041/MOIC.DIH 号(2012 年 5 月 28 日発行)
3. 産業廃棄物および手芸加工に係る廃棄物の管理に関する協定書 (2012 年 3 月 20 日発行、No.055555/IC)

- 農林省

1. 有機農業基準に関する農林水産大臣決定 (第 1666 号/MAF 発行日: 2005 年 12 月 30)

- 資源環境省

1. 環境保全法 (改正) (第 29 号/NA、2012 年 12 月 18 日発行)
2. 環境国家規格 (第 2734 号/PMO-WREA に関する協定書(2009 年 12 月 7 日発行))
3. 環境への影響または環境、社会および自然への影響に関する事前調査を行う事業会計及び活動の承認及び採択に関する政令 (No.8056/MoNRE、2013 年 12 月 17 日発行)
4. 有害廃棄物の管理に関する訓令 (No.0744/MoNRE、日付 2015 年 2 月 11 日 (国連食糧農業機関)
5. 公害防止に関するガイドライン第 0745 号/MoNRE、日付 2015 年 12 月 11 日)

3.1.3 ILO 条約の批准

ラオス人民民主共和国は 1964 年以来、ILO に加盟しており、以下を含む合計 10 の ILO 条約を批准している。

- 基本条約を含む合計 10 の ILO 条約を批准 (8 カ国中 5 カ国)
- ガバナンス条約 (優先順位) (4 件中 1 件)
- 技術的な規約 (178 件中 4 件)

ラオス人民民主共和国が批准した 10 の条約のうち、9 つの条約が発効しているが、批准された条約はなく、1 つの条約が破棄され、過去 12 ヶ月間に批准された条約はない

3.2 法制定の仕組みと状況

3.2.1 OSH 法規制の制定の仕組みと状況(中央・地方自治体の役割を含む)

OSH 法規制の制定には、いくつかの仕組みや状況がある。第十六章「優れた業績を有する者に対する方針」と「違反者に対する措置」で述べたように、「違反者に対する措置」に関する第 179 条では、法律に違反した個人または法人は、法令の定めるところにより、違反の性質に応じて、再教育、警告、罰金、一時的な営業停止、営業許可の取り消し、または裁判手続きに付されることになっている (NA, 2013a)。

MoLSW は、労働法 (NA, 2013a) や OSH 政令 (NA, 2019b)、MoLSW の下で発行された OSH に関する法令に基づき、国の事務局としての機能を持ち、国の OSH センターの事務局の支援を受けて、全国の OSH を実施するための政策、法律、規則、規制の策定、モニタリング、関係省庁、団体等の支援を行っている。労働社会福祉省は、OSH の管理において、次のような権利と義務を有している。

1. OSH に関する政策、法律、戦略、規則を策定し、政府に提案し、その検討と実施を図ること
2. 国家労働安全衛生計画の実施を監督、監視、支援すること
3. 労働安全衛生ユニット設立のためのライセンス発行を検討する
4. 労働安全衛生の実施に向けて、他の関連省庁、組織、地方政府との協力と調整を行う
5. 労働安全衛生の法規制に違反した者には罰則を与える
6. OSH 活動に関連して、他の国、地域、世界との連携
7. 定期的に政府に OSH の実施状況を報告する
8. 法律で定義されている権利を活用し、その他の職務を遂行すること

省と地方の労働社会福祉部は、OSH に対して次のような権利と責任を有する。

1. 労働安全衛生に関する政策、法律、戦略、規則を実施する
2. 労働安全衛生に関する法律と規則を普及させる
3. OSH の実施を監督、支援、監視、奨励する
4. 労働安全の実施に向けて、他の関連部署や組織との連携・調整を行う
5. 優秀な者には良い方針を実行し、OSH の法令に違反した者には罰則を与える
6. 労働安全衛生の監視と情報収集
7. OSH サービス部門の活動を監督、監視、管理する
8. 政府の監督に基づき、国際的なレベルの OSH 活動に協力する
9. この政令に示されているように、定期的かつ適時に省政府と労働社会福祉部に OSH 活動を報告する
10. 権利を活用し、法令に規定されたその他の業務を遂行する

また OSH 規則では、第 70 条の違反に対する罰金についても言及されている。この政令、労働安全衛生に関する法令に違反した個人、法人、団体であって、犯罪にならないものは、次のような罰金を科す。

1. 労働安全衛生検査官が労働単位で検査を行う場所に立ち入ったことに対して、1件につき500万キップの罰金を科す
2. 労働場が労働安全衛生の規則を有していない場合、従業員が100人未満の労働場では1回につき500万キップ、100人以上の労働場では1,000万キップの罰金に処される
3. 労働安全衛生監督官の警告通知に従わず、特に機械、設備、個人保護具の使用及び作業を改善、是正、修正、修正、停止しない場合は、1回につき300万キップの罰金が科せられる
4. 労働安全衛生の規則や規則に従わず、労働災害や疾病につながる職場の状態や環境を改善しようとし、従業員1人の死亡を引き起こした場合は、従業員1人の死亡につき2,000万キップの罰金を科す
5. 労働安全衛生担当者または責任者がいない場合は、1回につき300万キップの罰金を科す
6. 本令の規定に基づく従業員の健康診断を受けていない場合、従業員1人につき1回につき50万キップの罰金を科す
7. 妊娠中の従業員や生後12ヶ月未満の授乳中の乳幼児を持つ産後の女性を使用して残業をさせるか、または労働法の下で禁止されている作業をさせた場合、時間当たり一人当たり500万キップを罰金に処するものとする
8. 労働法で示されている以上の残業を従業員に強要することは、1回につき200万キップの罰金を科す。
9. 罰金刑の実施は3回を超えてはならないが、それでも違反を発見した場合、他の測定と罰則が適用される

罰金刑を実施しても3回を超えてはならず、それでも違反が認められた場合は、他の測定や罰則を適用して、営業許可の取消しや一時停止などの措置をとることになる。この法令に違反した個人、法人、団体は、刑法である労働安全衛生に関する法令に違反した場合、刑法で処罰される

しかし、法律の実施と施行は、特に零細企業、形式経済、移民労働者、建設業者の間で一貫性がない。

3.3 OSHに責任を持つ当局または機関

3.3.1 OSHに責任を持つ権限または組織

OSHに責任を持つ当局または機関は、MoLSW、ラオス労働組合連合会、ラオス商工会議所である。MoLSWの労働管理部は、労働省の一部であり、従業員を代表するラオス労働組合連合会と、使用者を代表するラオス国立商工会議所とともに、OSHに関する保護・予防を管理している（MoLSW, 2019）。ここでは「三国間組織」と呼ばれる形態であり、労務管理部の主要なカウンターパートである。

政府は、他の関係省庁、組織、地方自治体との連携を図るために、労働安全衛生研究所に直接責任を与え、OSH の管理を一元化している。大臣は、大臣の監督の下、2 人の副大臣の下で、労働安全衛生研究所を直接指揮する。1) 労働部、2) 検査部、3) 組織部、4) 社会福祉部、5) 退役軍人・障害者部、6) 年金・高齢者部、7) 大臣室、8 つの部局と 1 つの大臣室がある。社会保障省と⑧大臣のオフィス。労働局は局長の監督下にある。4 つの部門に分かれている。1) 労働政策・計画事務所、2) 労働管理事務所、3) 労働検査事務所、4) 労働安全衛生事務所。OSH と直接連携している事務所が 2 つある。

2019 年 2 月 5 日付けの OSH 政令第 22/Gov 号に基づき、以下では、各レベルの OSH に責任を持つ権限または組織の権利を簡単に紹介する。

労働安全衛生管理機構

政府は、労働社会福祉省に直接の責任を与え、他の関係省庁、組織、地方自治体の連携を図ることで、OSH 管理を一元化している。

労働社会福祉省の権利と責任

OSH の管理において、労働社会福祉省は以下のような権利義務を有している。

1. OSH の政策、法律、戦略、規則を策定し、政府に提案し、検討と実施を行うこと
2. 国家労働安全衛生計画の実施を監督、監視、支援する
3. 労働安全衛生部門設立のためのライセンス発行を検討する
4. 労働安全衛生の実施に向けて、他の関連省庁、組織、地方政府との協力と調整を行う
5. 労働安全衛生の法規制に違反した者には罰則を与える
6. OSH 活動に関連して、他の国、地域、世界との連携
7. 定期的に政府に OSH の実施状況を報告する
8. 法律で定められた権利を活用し、その他の職務を遂行する

事業主の代表者の権利と義務

事業主の代表機関は、労働安全衛生に関する業務について、次のような義務を負う。

1. 労働安全衛生に関する政策、法律、規則の策定と修正のための研究と協議会に参加すること。
2. 労働安全衛生に関する法令を実施するために、従業員、事業者団体、企業グループを奨励し、支援すること。
3. 事業主、事業者団体、企業団体、その他の機関に労働安全衛生に関する助言、知識、情報を提供すること。
4. その他、法令に示された役割と機能としての職務と責任を果たすこと。

3.4 検査体制を含むコンプライアンスを確保するための仕組み

3.4.1 労働検査場の数と検査状況

2016年12月5日付けの労働検査に関する大臣決定第4277号/MoLSW (MoLSW、2020a) に基づき、検査所の実施は、中央レベルの労働部門の検査部門の下の国家検査機関と定義され (MoLSW)、任命された者は国家労働検査官であり、中央レベルの検査官は10人、各省の検査官は3人であることが必要である。

以前は、全国では省・区レベルの労働部門の下に188人の労働検査官がいたが、現在では省・区レベルの労働検査官の数は減った。労働検査官の数は多いが効率が悪いため、地区レベルの労働検査官の数は削減され、現在は主に労働者の多い大規模な製造業がある場所でのみ勤務している。現在、ラオスには87名の労働検査官がおり、そのうち9名が労働局、13名が首都ビエンチャン、13名が首都ビエンチャン、サバナケット、チャンパサック、ビエンチャン県、シャヤブイリ、ルアンパバーン、ルアンナムタ、ウドムクサイなどの主要県に5名、その他の10県に3名ずつ配置されている。農務省 (MoA)、工商省 (MoIC) が検査を行うこともある。

製造業法では、管理検査機関の役割が定められている。当該当局は、工場を検査する工業・手工芸部門で構成されている。工場の活動が他の当局に関係する場合、検査は他の関係当局と緊密に協力して行われる。工場の設立と性能は、建物の建設、機械および設備の基準、製品の基準、安全基準、労働力の使用、権利と義務の実施、健康、環境への影響に焦点を当てるべきである。

農業に関する法律では、化学物質を使用している職業の安全衛生に関連する要素があり、その責任は安全性についてスタッフを訓練することである。農業省はこれを実施しています。

労働検査官の義務

労働検査官の権利は、2016年12月5日付けの労働検査に関する協定第4277号/MoLSW (MoLSW、2020b) で最初に言及され、その後、2019年2月5日付けの労働安全衛生に関する政令第22号/Gov にまで拡大された。

労働安全衛生検査官の主な職務は以下の通りである。

- 労働安全衛生の検査に関する計画、事業、行動計画、手順書を毎月、四半期、毎年作成する。
- 労働検査を計画、監視、実施することにより、全国の労働単位で労働法規を効率的かつ効果的に施行する。
- 労働法規に違反した従業員や使用者に対する罰金や行政処分などの制裁措置を実施する。
- 従業員及び使用者に労働法規の実施に関する技術情報を提供し、コンサルタントを提供する。

- 検査の活動と実施において、関係部門との調整を行う。ただし、必要な場合には、労働者を検査することが可能だが、後に関係当局に労働検査の結果を報告しなければならない。
- 違反した問題や法律でまだカバーされていない行為を取って、関係当局に通知する。
- 毎月の労働検査の結果をまとめ、省の労働社会福祉部（省レベル）に報告し、四半期ごとに定期的に MoLSW に報告する。
- その他、適切と思われる業務を遂行し、法律に抵触せず、他の組織に迷惑をかけず、偏見や利益を与えず、政府組織や法人に損害を与えず、従業員と使用者の関係に悪影響を与えないこと。

また、OSH に関する政令（NA、2019b）では、第 VIII 章では、以下のように労働安全衛生検査に言及している。

労働安全衛生検査官は、次の権利を有する。

1. 昼夜を問わず、必要に応じて事前通知の有無にかかわらず、すべての労働単位及び作業場で検査を実施すること。
2. 作業単位内の各作業手順、機械操作、工具及び各設備の検査を行うこと。
3. 事業主又は事業主の代表者、従業員又は従業員の代表者、その他の関係者からデータ収集及び関連書類のためのヒアリングを行う。
4. 検査に必要な書類の全部または一部をコピーすること。
5. サンプル、対象物の粒子又は化学物質のサンプルを採取して、検査及び分析する。
6. サンプル検査および分析に参加するために分野および関連した技術的な役人の専門家/専門家を招待すること。
7. 記録の動き、検査、分析、および明らかなように使用のためのなしの動きの映像および音。
8. 検査官の身分証明書を見せて自己紹介をするか、または自己紹介が仕事のパフォーマンスに影響を与えるか、または危険な場合には、労働単位に自己紹介をする必要はない。
9. 有害化学物質、粉塵、騒音、光などの室内空気の質を含む物理的測定のための特定の調査ツールを使用して、職場環境の点検と測定を行う。
10. 職場が従業員にとって危険で安全でない可能性が高い場合には、適切な期間内に事業主に改善と問題解決を指示する。
11. 従業員にとって危険で危険であると判断された場合には、すべての機械や設備の操作を停止するように命令することができます。機械や設備の運転停止期間は 15 日を超えてはならないが、その期間中、使用者は検査のために工場を閉鎖している間、通常の賃金として従業員に全額の給与を支払わなければならない。
12. 法律および規則で示されるように権利を利用すること。

労働検査官の基準と条件（MoLSW, 2020）

労働検査官は、労働局が労働検査を行うために任命した職員であり、労働検査官は次の基準を持っています。

- 1) 3年以上の労働社会福祉士であること。
- 2) 労働検査に関する研修を受けていること。
- 3) 資格があり、倫理的、責任感があり、誠実であること。
- 4) 検査する労働単位の守秘義務を守ること。
- 5) 規則や規則を尊重し、厳守すること。
- 6) 退職または他の部署への転勤前に、少なくとも3年間連続して労働検査官として働くことができること。

現在の検査状況は、すべての企業や事業者が労働検査官を配置しているわけではなく、また、配置している場合でも検査官が業務を遂行していない可能性があるため、すべての企業や事業者を対象としているわけではない。法律では、企業は少なくとも年に1回は労働検査官による安全検査を受けることになっているが、コーヒー農園や製粉所での検査はほとんど行われていない。

労働検査官の機能には、労働法の施行、使用者や労働者への労働法遵守のための技術的な情報や助言の提供、既存の法的規定では特にカバーされていない欠陥や虐待の管轄当局への通知などが含まれる (ILO, 2020)。さらに、ILO(2019)が実施した調査では、調査対象となった衣料品工場では、危険性やリスク評価が行われていなかったり、職場での OSH 管理に割り当てられた役割と責任を含む、確立された OSH 方針と手順がなかったりすることが示されている。OSH 手順の欠如には、緊急時の備え、ハザードとリスクの管理・管理、OSH 委員会、化学物質管理が含まれていた (ILO 2019)。

3.4.2 検査のための民間機関の活用

OSH の検査は、職場における OSH に関する法律や規制の実施状況を監視し、使用者と従業員がその機能と責任に従うことを保証するために、MoLSW によって任命された OSH 管理組織のスタッフによって行われる。民間の検査機関はないが、民間のコンサルタントや NGO が短期研修や小規模な調査などの OSH サービスを提供している。

3.4.3 事業場の報告・届出制度

ILO の専門家は、「職業病の記録・届出のための全国システム-実践ガイド」によると、労働災害・疾病に関するデータの収集・記録・届出は予防に役立つものであり、予防措置を開発するためには、そのような災害・疾病の原因を特定し、研究することも重要であると強調した。これを受けて、国内官庁が作成した原案を修正し、その規定が労働災害・疾病に関する信頼性の高いデータ及び関連統計の収集・記録・届出の基本的要件となることを指摘し、実施基準を採択した。さらに、通勤災害、危険発生・事故の記録・通知に関する同等の要件についても勧告がなされた。

動議に基づき、各政府は、各国の状況や慣行に照らして、また使用者・労働者の最も代表的な組織と協議して、首尾一貫した国の政策を策定し、実施し、定期的に見直しを行う権限のある機関を、適切な場合には指名すべきである。（以下「政策」と呼ぶ）。

- a) 労働災害及び疾病の記録、届出及び調査。
- b) 通勤中の事故、危険な出来事及び事件の記録、通知及び調査
- c) このような事故、疾病、発生に関する統計の編集、分析、公表（ILO、2013年

MoLSW は、職場における OSH に関する法律と規制の実施を監視するために、労働検査官を任命している。また、OSH 政令第 26 条の「労働災害と疾病の記録と報告」では、使用者は労働災害と疾病の原因を記録しなければならない。労働災害の原因の記録は 5 年以上、職業性疾病の記録は 20 年以上保管しなければならない。

事業主は、3 ヶ月、6 ヶ月、1 年ごとに労災・疾病による被害者数を労務管理監督署に報告しなければならない。事業場で重大な労働災害が発生した場合や、労働災害により多数の従業員が負傷した場合には、使用者は次のような手続きを取らなければならない。

1. 従業員の死亡、重傷者、職場の損傷が激しく、工場を閉鎖する原因となった場合、使用者は直ちに労務管理当局に報告し、48 時間以内に事故の原因、損失額、損害額、解決策、予防策などを書面で報告しなければならない。
2. 使用者は労働災害による従業員の傷病死額について、7 日以内に社会保険に届け出て、社会保険法に基づいて補償を受け、労務管理当局に報告しなければならない。
3. 使用者が上記 1.と 2.の報告をしない場合、従業員、労働組合の代表者や連合会、被害者の家族にも報告する権利がある。

しかし、現在のところ、労災に関する報告・届出制度はない。事故による病院治療費の支払いは当部門で精算しなければならないため、SSO は組合員の労働災害の記録のみを保持している。事故が本当に職業病かどうかを医師が証明することができないため、職業病の事例はまだ報告されていない。

3.5 業務上の傷病をカバーする労働者災害補償保険と社会保障制度

3.5.1 労災保険と社会保障制度

1999 年 12 月 23 日付けの政令第 207/PM 号は、社会保障制度に関する規則を公布した。2013 年、国民議会は新しい社会保障法を承認し、2019 年に改正された（NA, 2019b）。これは、健康管理、労災、職業病、出産、病気、無効、年金、死亡、遺族給付、失業に関して、資格条件ごとに定められた基本的な生活を保障するために、民間部門と公共部門、社会保障基金から給付を受ける任意の被保険者とその家族のための既存の拠出型社会保障制度を調和させることを目的としている。

公共部門の社会保険制度

1990年以前、ラオス政府は、公務員、兵士、警察官の退職年金、失職手当、出産手当、医療手当、死亡手当、遺族手当などの社会保険を補助的に提供していた。1993年には、公務員の基本給の6%を財源とし、残りの金額をラオス政府が提供する半財源型の社会保険制度が創設された。2007年の社会保険制度改革令では、公務員の給与の8%の拠出率が新たに定められ、雇用主である政府が8.5%を社会保障基金に拠出し、そのうち0.5%は補償基金に充てられることになっている。社会保障基金は国家社会保障局（SASS）によって管理されており、理事会は各省の代表者で構成されている。現在、公務員とその扶養家族に提供されている保険給付は、首相令第70号で定められており、医療給付（被保険者の病気時の医療サービス、配偶者と18歳未満の子供のための医療サービス）、出産給付、仕事上の傷病・職業病給付、無効給付、病気給付、年金、遺族給付、葬儀給付（WHO、2014年）などがある。

民間向け社会保険制度

社会保険法は、10人以上の労働者を雇用する企業に適用されるが、1人以上の従業員を雇用する企業にも適用される。2001年以降、社会保険庁は国有企業を含む民間部門の社会保険制度を担当している。社会保険庁は、社会保険庁の監督の下、自己資金で運営されている司法機関として運営されている。民間企業の社会保険制度は、雇用者と被雇用者の双方が、被保険者所得の4.5%の同率で社会保障基金（SSF）に毎月拠出金を支払わなければならない、雇用者は補償基金のために5%を追加で支払わなければならない、拠出型・強制型の制度である。ラオス政府は基金に拠出していないが、破綻時の保証を提供し、基金の管理を監督している。政府の社会保険は、健康保険、傷病・出産手当金、葬儀手当金、無効・老齢年金、被保険者や扶養家族への職業病・労災給付金などの給付で構成されている。

健康保険の主な給付は、外来、通院、救急、職業病の労災の場合の医療などがあります。SSOは、各受給者のために契約した病院に、その病院を治療先として選択した患者の数に応じて、治療費の前金または割増金を支払う。社会保険制度は、社会保険制度への拠出を維持している人のために、あらゆる種類の労働災害や負傷を補償し、カバーしようとしています。労働災害が発生すると、雇用主は負傷者を病院に連れて行き、SSOに連絡して記録を取らなければなりません。重傷の場合は、警察に連絡して報告しなければならぬ。なお、従業員10人以上の企業がすべて同団体に加入しているわけではないため、データはまだ完成していない。

社会保険法（第4章の第20条から第27条）には、雇用災害と職業病給付と非労働関連のケースについて明記されている。現在、医療パッケージには、急性期から長期にわたるもの、費用の制限はないが予防・促進サービス、美容・トランスジェンダー手術、眼鏡を除いたものなどが含まれています。供給が不足して施設で入手できない薬を処方された場合や、スキームの対象外であるため、患者は民間の薬局から商品を購入して自己負担しなければならない（WHO、2014）。

傷病手当金には、病気や怪我による一時的な仕事の不能や収入の喪失に対する保険が含まれており、SSO は被保険者の給与の 60%を支払う。出産手当金は、出産または流産の結果、負傷者が医学的な理由で仕事に復帰できなくなった場合、出産後 3 ヶ月間は、被保険者の収入の 100%に相当する額が支給される。また、業務中に発生した事故についても、業務上のケガをした場合には経済的な補償を受けることができます。さらに、「職業病給付金」は、MoH に登録されているすべての対象となる健康と心の病気に対して償還することができます。特定の疾患がリストに含まれていない場合、SSO 医学委員会は、従業員が業務上発症したという証明書を発行することができます。最後に、SSO は、葬儀費用に対して、被保険者の被保険者収入の 2 ヶ月分（子供の死亡）、3 ヶ月分（配偶者の死亡）、または 6 ヶ月分（被保険者の死亡）に相当する給付金を支給することができます。

インフォーマルセクターのための薬価

インフォーマルセクターのための金融保護制度は、保健省の管轄下にあり、3 つの制度で構成されている。

2004 年に開始された貧困層のための政府基金（健康公平基金）、2010 年から試験的に実施され、その後広く展開されている 5 歳未満のすべての子どものための無料出産・無料ケアスキーム、そして 2002 年に開始された自主的なコミュニティベースの健康保険（CBHI）である。インフォーマルな労働者にとって、低所得、社会的保護の欠如、高額でしばしば予測不可能な OOP の組み合わせは、医療利用とアウトカムの不平等として顕在化する可能性がある（World Bank, 2019; Korar, M. et al.

2012 年に採択された首相令 470 号は、保健省と NHI 局の管理の下で、NHI 局の設立と既存の社会的健康保護制度のシングルペイラーシステムへの統合のための法的枠組みを提供している。国民健康保険戦略 2017-2020 は、スキームの目的、資金の流れ、運営機能を概説している（MOH, 2018）。現在、インフォーマル部門の薬価収載率は 74%（MOH, 2019b）と推定されており、健康保険の総収載率（フォーマル部門とインフォーマル部門）は 94%となっている。

3.5.2 労働災害・疾病の認定基準

ラオスにはまだ労災基準がなく、労災関連の各省の閣僚協定があるのみである（表 11）。

3.5.3 職業病リスト

ラオスにおける職業病の全国リストは、ILO の職業病リストを用いて作成され、2010 年に改訂されたものである（MoLSW, 2018）。2018 年 8 月 16 日付けのラオス人民共和国の最初の国家職業病リスト No.3002/MoLSW は、同国の職業病の予防、記録、届出、補償を目的として作成された。ラオス人民共和国の全国職業病リストは以下の通りである。

1. 作業活動に起因する薬剤への曝露による職業病

ベリリウム又はその化合物、カドミウム又はその化合物、リン又はその化合物、クロム又はその化合物、マンガン又はその化合物、ヒ素又はその化合物、水銀又はその化合物などの化学物質が原因となる疾患に記載されている化学物質は 40 種類ある。鉛またはその化合物、フッ素またはその化合物、二硫化炭素、脂肪族または芳香族炭化水素のハロゲン誘導体、ベンゼンまたはその同族体、ベンゼンまたはその同族体のニトロおよびアミノ誘導体、ニトログリセリンまたはその他の硝酸エステル、アルコール類、グリコールまたはケトン類 一酸化炭素、硫化水素、シアン化水素またはその誘導体、アクリロニトリル、窒素酸化物、バナジウムまたはその化合物、アンチモンまたはその化合物、ヘキサン、鉍酸、医薬品、ニッケルまたはその化合物、タリウムまたはその化合物、オスミウムまたはその化合物のような窒息剤。セレンまたはその化合物、銅またはその化合物、白金またはその化合物、スズまたはその化合物、亜鉛またはその化合物、ホスゲン、ベンゾキノンなどの角膜刺激性物質、アンモニア、イソシアネート、農薬、硫黄酸化物、有機溶剤、ラテックスまたはラテックス含有製品、塩素などの物理的要因による疾患。

1) 騒音による聴覚障害、2) 振動（筋肉、腱、骨、関節、末梢血管または末梢神経の障害）、3) 圧縮または減圧された空気、4) 電離放射線、5) レーザーを含む光学（紫外線、可視光線、赤外線）放射線、6) 屋外での作業や極度の高温（42 度以上）による熱中症などの物理的な要因によって引き起こされる疾患。

生物学的製剤及び感染症又は寄生虫性疾患 1) 肝炎ウイルス（実験室勤務者、医療従事者）、2) ヒト免疫不全ウイルス（HIV）（実験室勤務者、医療従事者）、3) 結核（医療従事者）、4) ブルセラ症（ある程度のデータが必要、獣医師でも可）、5) 炭疽菌（実験室勤務者、獣医師）、レプトスピラ症。

2. 対象臓器系別の職業病

呼吸器系疾患としては、①線維性鉍物粉塵によるじん肺（珪肺症、アントラコ珪肺症、アスベスト症）、②珪肺結核、③線維性鉍物粉塵によるじん肺、④鉄沈着症などがある。5) 硬質鉍物の粉塵による気管支肺疾患、6) 綿、亜麻、麻、シスタルまたはサトウキビの粉塵による気管支肺疾患、7) 作業工程に固有の感作性物質又は有害物質が認められている場合の喘息、8) 労働活動に起因する有機性粉塵または微生物汚染エアロゾルの吸入または有機性粉塵の粉塵または微生物汚染エアロゾルの吸入に起因する外因性アレルギー性肺炎、9) 石炭粉塵、石切り場の粉塵、木材粉塵、穀類および農作業場の粉塵、畜舎の粉塵、織物の粉塵および紙の粉塵の吸入に起因する慢性閉塞性肺疾患、10) アルミニウムに起因する肺疾患、11) 作業工程に固有の感作性物質または刺激性物質が認められていることに起因する上気道疾患。

次のような皮膚疾患。他の項目に含まれない業務に起因する他の認められたアレルギー誘発剤によるアレルギー性接触皮膚症及び接触蕁麻疹、及び他の項目に含まれない業務に起因する他の認められた刺激剤による刺激性接触皮膚症。

手首の反復運動、強制的な労作及び極度の姿勢による放射状スタイロイド腱鞘炎、手首の反復運動、強制的な労作及び極度の姿勢による手及び手首の慢性腱鞘炎、肘部の長時間の圧迫による肘頭滑液包炎等の筋骨格系疾患。4) 膝をついた姿勢での長時間の滞在による膝蓋骨前滑液包炎、5) 反復的な力仕事による上顎炎、6) 膝をついた姿勢やしゃがんだ姿勢での長時間の仕事に伴う半月板損傷、7) 反復的な力仕事、振動を伴う仕事、手首の極端な姿勢、またはこれらの3つの組み合わせによる手根管症候群。精神的・行動的障害 1) 心的外傷後ストレス障害（表12～14）。

3. 職業性がん

以下の薬剤が原因で発生するがん。1) アスベスト、2) ベンジジン及びその塩、3) ビス-クロロメチルエーテル (BCME)、4) 六価クロム化合物、5) コールタール、コールタールピッチ又はスート、6) 8-ナフチルアミン、7) 塩化ビニル、8) ベンゼン、9) ベンゼン又はその同族体の有毒なニトロ及びアミノ誘導体、10) 電離放射線、11) タール、ピッチ、アスファルト、鉱油。アントラセン又はこれらの物質の化合物、製品又は残留物、12) コークス炉からの排出物、13) ニッケル化合物、14) 木粉、15) ヒ素及びその化合物、16) ベリリウム及びその化合物、17) カドミウム及びその化合物、18) 酸化エチレン、19) B型肝炎ウイルス (HBV) 及びC型肝炎ウイルス (HCV)
(医療従事者及び実験室従事者)

4. その他、低照度や地下作業による鉱夫眼振などの病気

表12 職業性疾患の診断の主な基準について

Key criteria	Additional explanation
臨床的特徴は、指定された薬剤への曝露後の健康影響について知られていることと一致していなければならない。	症状および徴候は適合していなければならない。これは場合によっては適切な診断検査によって裏付けられることもある。
十分な職業的曝露の兆候がなければならぬ。	暴露に関する証拠は、以下のようにして得られる <ul style="list-style-type: none"> - 職業病歴。 - 事業場で採取した労働衛生測定の結果 - 生物学的モニタリングの結果、検査が可能な場合、および - 過剰曝露の記録がある場合には、その記録。
鑑別診断を考慮しなければならない。	職業性疾患と類似した臨床的特徴を持つ非職業性疾患があり、医師は職業性疾患を診断・除外する前にこれを考慮しなければならない。

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EU ガイドラインに基づいて開発された職業病診断の重要な基準。職業性疾患に関する情報通知：診断の手引き」を参照。ルクセンブルク：欧州共同体公式出版局、2009:227-261.

しかし、労災リストの研修がまだ行われていなかったため、労災リストの実践には至っていない。

第4章 OSHレベル

4.1 OSHに関する国の方針と戦略

4.1.1 OSHに関する国の政策・戦略・計画の状況、内容、運用状況

ラオスの労働安全衛生（OSH）は、特に OSH に関する幅広い国家政策、戦略、計画によって規制されている。

- 第1次国家 OSH 戦略（2005年～2010年）
- 第2次 OSH 国家戦略（2011年～2015年）
- 労働安全衛生に関する政令（Decree on Occupational Safety and Health, No 22/Gov, date of 5/2/2019, as developed a set of the specific rules of OSH.）
- 2013年8月21日付けの建設現場における労働安全衛生に関する閣僚決定（第3006号/MoLSW号）

1. 第1次 OSH 国家戦略（2005年～2010年）

2005年の MoLSW の OSH マスタープランの策定により、OSH の問題に対する意識が高まった。全国的な OSH マスタープランは、小規模企業や建設部門における検査官の能力構築と OSH 保護に焦点を当てていた。この戦略は、新興の経済環境における職業リスクの変化を浮き彫りにするのに役立った（MoLSW, 2005）。

しかし、OSH の実施は依然として限られており、特に工業プロセス内での新技術や化学物質の使用は一般的であるが、労働者や場合によっては OSH 検査官がそのリスクを知らないことが多い場合には困難である。開発パートナーからの OSH への支援は限られているが、FDI の大幅な増加と新たなリスクは、これが更なる努力が必要な分野であることを示している（ILO, 2011）。

2. 第2次国家 OSH 戦略（2011-2015）

第2次国家 OSH 戦略では、下記について明記されている。

1) 州レベルでの労働安全衛生組織の設置、2) 必須の労働安全衛生法の制定、3) 労働安全衛生スタッフの能力開発、4) 労働安全衛生検査の強化から構成されている。5) 労働災害・業務上疾病報告制度の改善、6) 労働安全衛生に関する研究開発、7) 労働災害・業務上疾病の予防、8) 労働安全衛生の推進と普及、9) 労働安全衛生研究所設立のための調査研究（MoLSW, 2011）。

3. 労働安全衛生に関する政令（第22号/Gov2019年2月5日付）

労働安全衛生に関する政令では、OSH に関する具体的なルールを策定した。

これは、労働法の OSH に関する章を明確にしたものである（NA, 2019b）。この政令は、職場における OSH 管理システムの最低要件、政府の義務と中央・省レベルでの調整の仕組み、使用者と従業員の役割、職場検査、労働者の健康監視、職場における業務上疾病・傷害の通知・原因調査などの労働安全衛生サービスの基本的なセットを定義した最初の立法措置である。

労働安全衛生に関する政令は 10 章で構成されている。第 1 章は総則について（第 1 条から第 7 条）。第 2 章は、労働安全衛生について（第 8 から 32 条）。第 3 章は、OSH サービス機構について（第 33～44 条）。第 4 章は、OSH の収入について（第 45 条～第 46 条）第 5 章は禁止事項について（第 47 条～第 49 条）、第 6 章 OSH の委員会について（第 50 条～第 53 条）、第 7 章は三者構成について（第 54 条から第 61 条）。第 8 章は OSH 検査について（第 62 条から第 65 条）。第 9 章は、優良事業者へのインセンティブと違反者対策について（第 66 条から第 71 条）。第 10 章は最終規定について（第 72～73 条について）。（NA, 2019b）

OSH 令により、以下のように規定されている：

- 1) 雇用者が労働安全衛生に関連する規則、手順、措置に従うことを保証する。
- 2) OSH に関連する規則や規制の実施に成功している従業員やユニットに報酬を与える。
- 3) 関連部門と協力して OSH に関する検査・評価について開発し、従業員の労働安全衛生を確保するために施行し、従業員の労働災害と疾病保険の支払いを行う。
- 4) 使用者の責任の下で、従業員に規則、規制、手順、安全評価などの教育とアドバイスをする。
- 5) 従業員の健康への悪影響を避けるために、従業員の能力と特性に応じて適切なポジションを提供し、移動させること。
- 6) 労働安全衛生の違反の評価及び調査のために、外部の個人または会社を雇うこと。
- 7) 従業員に危険防止、緊急時の対応、個別の安全保護具や医療救急法の使用を奨励すること。
- 8) 使用者は、労働安全衛生を確保するための各活動を確立し、実施し、フォローアップする責任がある。

使用者は、法的に以下の責任を負う。

- 労働安全と健康に関連した職場の危険性、工具、設備、材料の標準作業手順書 (SOP) に関する情報とアドバイスを従業員に提供する。
- 従業員に快適で安全な作業環境を提供し、作業中に化学的、物理的、生物学的製品によって引き起こされる労働衛生上の問題にさらされる個人のリスクを防止すること。
- 従業員が異常な労働条件で働いているときに、毒性の影響を軽減するために、防護服や物質、製品などの追加的な器具を提供すること。

従業員の権利は以下の通りである。

- 1) 労働安全と健康を確保するための職場環境の整備を使用者に要求すること。
- 2) 危険因子や毒性に関する情報、知識、保護措置を受けること。
- 3) 労働災害や業務による疾病の治療で回復した後、使用者に適切な職場を提供することを要求すること。
- 4) 健康に悪影響を及ぼす危険性が高い業務を拒否すること。

5) 使用者が従業員の要求通りに職場環境を改善しない場合、または労働法とこの命令に従わない場合、労働管理機関に直接請求または報告すること。

4. 建設現場における OSH に関する省令決定(2013/8/21 日付第 3006/MoLSW 号)

この政令は、特定建設業に適用されている (MoLSW, 2013a)。使用者は、以下の作業中に装備を提供し、労働者はこれを使用しなければならない。

1) 木工・塗装・鉄工・トンネル工事・ガラスパネル工事・左官工事・コンクリート工事などの作業を行う場合は、安全 ヘルメット、フェイスマスク、かかとを覆う長靴を着用しなければならない。

2) 電気機器、ガスおよび他の電源によって溶接し、切断するときには作業の際、マスクまたは安全ゴーグル、ズボン、長袖シャツ、手袋、かかとをカバーするブーツを着用しなければならない。

3) 切断、脱着、打込みを伴う作業を行う場合は、安全ヘルメット、ゴーグル、マウスマスク、手袋、かかとを覆う長靴又は安全長靴を着用しなければならない。

4) 規制値を超える騒音下での作業時は耳栓を着用すること。

5) 有毒物質を取り扱う作業の際は安全ヘルメット、安全マスク、手袋、ゴム底長靴を常時着用すること。

6) 高所作業時には、安全ヘルメット、安全ハーネス、ゴム底ブーツを着用すること。

7) 掘削・掘削作業中は、適切な個人用保護具を着用しなければならない。

使用者は、10 人以上の労働者を使用する建設現場では、安全衛生責任者を選任しなければならない。50 人以上の労働者については、現場に安全衛生委員会を任命しなければならない。このような委員会は、同数の労働者代表及び使用者代表を含む、現場内のすべての関連部門の役員及び専門家で構成されなければならない。安全衛生責任者は、資格を有するか、または訓練を受け、関係当局の認定を受けた者でなければならない。

安全衛生責任者及び委員会 [建設]現場の労働者安全衛生責任者及び委員会は、次の任務を有する。

- 労働者の安全衛生計画を策定する。
- 労働組合内での安全衛生教育を行う。
- 安全衛生に関する相談やアドバイスを提供する。
- 安全装置および個人用保護具の点検および維持 - 現場および労働者の労働条件を点検し、危険が発生する可能性があることが判明した場合、安全衛生担当者は使用者に通知し、緊急に状況を解決しなければならない。
- リスク分析を行い、事故や職業病の潜在的な原因を探る。
- 契約当事者を含む労働者に定期的に労務管理機構の法令や情報を伝達すること。
- 労働災害や職業病が発生した場合には、事業主に通知して原因を調査し、予防措置を講じること。

事業主は、作業開始前及び作業中に職場の安全を担当する責任者を選任しなければならない。

- 1) 建設資機材を整然と保管し、有害廃棄物と非有害廃棄物を分別して、建設現場を清潔に保たなければならない。
- 2) 建設工事で爆発物を使用する場合は、事業主は、安全な保管体制を整備し、他の工事に使用しないようにしなければならない。
- 3) 建設現場で 1.5m 以上の高所で作業する場合は、はしごや歩道、柵や強力なバリアを設置して安全を確保しなければならない。
- 4) 使用者は、自然災害時には、安全な場所で作業をさせるか、災害救助を行う場合を除き、労働者に作業をさせてはならない。
- 5) 使用者は、停電時に使用するための十分な非常用照明を確保するとともに、すべての車両の出入り口に警告標識を設置し、工事現場への車両の出入りを指示するための信号機を配置しなければならない。
- 6) 建設現場には、最寄りの病院、消防等の電話番号等の緊急時に使用するために、関係当局の電話番号を表示した看板を設置しなければならない。
- 7) 事業主は、次に掲げる必要な福利厚生のための施設を提供しなければならない：
- 使用者は、本決定書第 35 条に規定する個人用保護具、
- 救急箱、
- すべての労働者のための清潔で安全な飲料水、
- 清潔で十分な数のトイレ、洗面所及び洗面台であって、作業現場に設置され、男女別のトイレ、
- 適切な衛生的な休憩室及び食堂その他の必要な施設を提供しなければならない。

第5章 分析と行動計画

5.1 既存 OSH 制度のギャップ分析とアクションポイントの提言

5.1.1 既存の OSH 制度のギャップ分析

- ・ OSH 法制の枠組みが十分に機能しておらず、全国的に実施されるように強化されていない。
- ・ 労務管理局の OSH 検査官は量的にも質的にも不十分なため、OSH 検査の実施が不十分である。
- ・ 他の国家開発計画との連携や統合が不十分である。
- ・ 健康管理システムは全体的な健康管理サービスを提供しているが、特定の職業性疾患に関するものは存在しない。
- ・ 企業の規模にかかわらずすべての事業主が OHS 委員会を組織しているわけではない。
- ・ 特定の OSH 機関と OSH を担当する組織が不足している。現在、労働管理局の下に OSH 検査の小さな部門があり、MoLSW が国内の OSH 検査を監督・監督している。
- ・ すべての雇用主が社会保障機構(SSO)のメンバーになることを申請していないため、SSO のカバー率は低い。
- ・ 重大な労働災害や重大な職業病の事例については OSH 当局が調査していない。
- ・ 職業病と健康障害のリストは存在するが、医師が業務に関連した疾患を職業病と診断していないため、保健サービスではまだ実施されていない。
- ・ 職業病の特定と補償のためのシステムが実際には機能していない。
- ・ 労働災害・事故の記録・報告システムが欠如している。労働災害の統計を担当する特定の組織がない。傷害事例は健康保険の SSO にのみ報告されている。
- ・ 政策立案者や NA 会員の間で、国のアジェンダにおける OSH の優先順位が低い。

5.1.2 国家レベルでの OSH 制度のアクションポイントの提言

- ・ 労働法と OSH 政令の施行を強化することが必要である。MoLSW と三者構成組織は積極的に、職場における OSH 政令の実を監視し、リスクアセスメントに基づく OSH の評価を保証し、優先順位を考慮した予防措置を実施し、すべての危険・有害要因を管理すべきである。三者は、セクターレベル（産業グループ、運輸・物流グループ、民間サービスセクターグループ、地方公共セクターグループ）での政策・社会対話を組織すべきである。セクターグループと労働安全衛生委員会は、キャンペーンを実施して出版活動や研修コースを計画すべきである。
- ・ 使用者と従業員が協力して職場の安全性を改善・維持することを強化すべきであり、また OSH に関する問題は、雇用者、従業員、またはその代表者の間で議論されることが必要である。

- ・ OSH 担当官と OSH 検査官の数および能力を向上させ、OSH 検査および監視を強化する必要がある。年に一度、すべての企業に対し OSH 検査官による検査が行われるべきである。

- ・ OSH 検査員の管理体制の強化および、労働検査機能と能力の強化が必要である。罰金（労働検査官の組織・機能に関する大臣決定）の水準も、適切に制裁を反映させるように引き上げる必要がある。

- ・ 政府レベルでの情報キャンペーンも必要である。例えば、主要な政策立案者や国会議員を対象とした情報キャンペーンを実施し、政策立案者の間で社会保護カバーのメリットに対する認識を高め、労働者福祉省と国家社会保障省が適切に執行責任を果たすことを保証しようとする政治的意思を高める必要がある。

- ・ 職業病に関して法制化し、職業病のリストを作成する必要がある。

- ・ また、政府レベルでの情報キャンペーン、例えば主要な政策立案者や国会議員を対象とした情報キャンペーンも必要であり、政策立案者の間で社会保護カバーの利点に対する認識を高め、社会保障省と国家社会保障省の両方が適切に執行責任を果たすようにするための政治的意思を高める必要がある。

- 社会保障法の執行の強化 国家社会保障基金（NSSF）は、商工省（事業免許課）および税務庁と、SSO のメンバーとなるように強化するために、より強力な執行へのアプローチを議論すべきである。

- ・ OSH に関する統計を充実させ、労働災害・職業病の届出・登録制度を設ける必要がある。冗長なデータや手続きを排除しつつ、一貫した効果的なデータ収集システムを確立するために、既存の傷病の記録・届出・報告システムの全体的な見直しが急務である。

長期的には、これは全国的にも国際的にも比較可能なデータの共通基盤の構築に向けたものであり、労務管理省が OSH 統計の中心となるべきである。うまくいけば、これらの問題に対する協調的な努力により、今後数年間で大幅な改善をもたらさるだろうと考えられる。

5.1.3 日本政府による国家的な OSH 制度のニーズ調査の支援

- 労働災害・疾病・事故、危険発生・インシデントの記録・届出・調査及びその取りまとめ・届出・調査における OSH 統計システムの確立のための技術支援
- OSH 担当官及び検査官の能力強化による OSH 検査及び監視の実施強化
- OSH 検査のための設備の提供

5.2 事業場における現状の OSH 管理のギャップ分析とアクションポイントの提言

5.2.1 事業所における現在の OSH 管理のギャップ分析

- ほとんどすべての省の保健局には労働衛生部門がない。
- 職場での監視/スクリーニング/リスク評価/職場復帰/その他についての体制がまだ限られている。

- 職場における OSH 方針、OSH マネジメントシステムの文書化、コミュニケーション、計画、実施が不足している。
- 労働安全衛生管理システムに関する OSH 標準と国家ガイドラインが欠如している。
- OSH 委員会の手順、OSH 委員の役割と責任が明確に定義されておらず、職場における OSH ガイドラインが欠如している。
- 雇用者の OSH に対する意識が欠如している。
- 一部の企業では、職場での OSH 委員会や OSH 基準を設置していない。一部の職場では、OSH 委員会が議事録付きの定例会議を実施していたが、OSH 委員会としては機能していなかった。是正処置計画の実施を伴う職場の危険性評価、危険性の除去、それが不可能な場合は危険性を最小化するか、危険性の低い手段で代替すること、個人ベースの手順よりも先に集団的な安全対策を手配すること、実施された安全衛生対策の有効性を評価すること、継続的なフォローアップと労働条件のモニタリングなどが行われていないため、委員会は実施されていても機能していないのが現状である。
- 雇用主が職場において労働者に OSH に関する入門訓練を導入していないため、労働者の安全衛生に対する意識が低い。
- 職場での OSH 担当者の数が限られている。小規模企業は、職場での OSH 担当者に関する法令に従っていない。
- 労働者数 10 人未満の小規模企業の職業性疾患の社会保険の適用レベルは一般的に非常に低い。特に、任意保険にしか加入できない可能性のある非正規労働者が多く存在することを考えると、適用範囲のレベルは特に低いように思われる。
(雇用主・投資家が外国企業である場合や、買い手が必要とする場合は、保険の適用率が高くなる。)
- 職場での OSH 労災の記録と報告のシステムが欠如している。労働災害に関するデータの利用可能性と質は限られており、主要機関間のデータの調整と共有も限られている。
- 仕事に関連したストレス、アルコールや薬物の乱用、暴力(身体的・心理的ともに)、HIV/AIDS などの職場での健康増進とウェルビーイングの欠如は、すべて労働者の健康関連の問題や企業や組織の生産性の低下につながっている。

5.2.2 事業場における OSH 管理のためのアクションポイントの提言

- 事業主が職場での OSH 宣言の実施を強化すること。具体例として、従業員 100 人以上の企業に 1 人の OSH 担当者と OSH 関連の健康専門家、OSH 委員会を設置すべきである。
- 企業の管理者は、OSH に関する政令のすべての側面を実装すること、特に職場での労働安全衛生に関するトレーニングの実施を保証する必要がある。
- 使用者は、OSH ポリシー、組織化、計画と実施、評価と行動改善を設定する必要がある。OSH の組織化は、労働者の安全と健康の保護の責任を包含し、組織内の OSH 活動のためのリーダーシップ、能力と訓練、OSH マネジメントシステムの文書化、

コミュニケーションを提供する。計画と実施は、初期レビュー、システム計画、開発と実施、OSH の目標、危険防止が含まれています。評価は、パフォーマンスの監視と評価、調査業務関連の傷害と職業性疾患、監査と管理レビューで構成されている。

- 労働安全衛生マネジメントシステムに関する OSH 基準および国家ガイドラインを策定し、承認する。
- 業務上の傷病・職業病の届出・記録システムを構築し、労働社会福祉部労務管理部に報告する。
- 基本産業保健サービス（BOHS）の概念を推進し、地域レベルでの職業性疾患の診断と治療だけでなく予防的ケアも提供するための産業保健スタッフを育成する。
- 安全衛生に関する訓練の提供および、検査の仕組みを確立すべきである。
- 企業の OSH 方針の枠組みの中で、職場での健康増進策に取り組むための方針と行動の開発を支援するために設計されたトレーナーの方法論の訓練に基づく対話型の教育プログラムを提供すべきである。
- OSH と職場のウェルビーイングを重視した新しい経営文化と現代的なリーダーシップを開発する必要がある。

5.2.3 日本政府の事業所における OSH マネジメントのニーズ調査への支援

- OSH 担当者の能力開発。
- 職場における OSH 方針の策定、組織化、計画・実施、評価、行動改善を支援する。
- OSH ガイドラインを作成し、教育・啓発ツールを開発する。

5.3 OSH 領域に従事する人材に対する既存の専門教育のギャップ分析とアクションポイントの提言

5.3.1 OSH 分野に従事する人材に対する既存の専門教育のギャップ分析

- 全ての事業主が従業員に OSH 教育を実施していない。また職場での教育記録がない。
- OSH 検査官や役員の研修が不十分で、OSH 検査官の定期的な検査研修が行われていない。
- 量的にも質的にも OSH 担当者の能力が不足している。
- 職業病や業務上疾病を診断する医師が不足しており、これらの症例を OSH 検査に報告することができていない。
- 産業保健医、産業保健師、産業衛生士がいらないため、長期的な OSH 教育が行われていない。

5.3.2 OSH に従事する者へのアクションポイントの推奨

- 雇用主は、一般的な導入訓練を全従業員に提供すべきである。
- 安全管理者がコンピテンシーの分野を満たすために、必要な分野をカバーするための短期トレーニングコースがあるべきである。（これらの分野とは、職場における

OHS の対象、OHS の法律と協定、職場における任務および義務と責任、職場における OHS の協力、情報源、研究、諮問機関、事故防止、予防方法、作業能力と福利厚生、人間工学、作業衛生、職場における物理的・化学的剤 質、精神・社会的な作業環境、安全管理などである。）

- 職業病の認識と特定を進展させる必要がある。職業性疾患のリストを、疾患の原因となると認識されている業務の種類と関連付けるためには、更なる作業が必要である。また、職業性疾患を診断するための専門知識の開発も必要である。
- 職業病診断の専門家としての職業病診断医の養成も必要であり、また産業医の養成カリキュラムを整備すべきである。
- 短期的には、OSH担当者やOSH検査官の能力を高めるための短期研修（3～6ヶ月）が必要である。また OSH の有効性の検証活動を行う者に必要な OSH 研修、例えば、OHS 委員会研修、応急処置研修、生体安全、放射線安全研修などが必要である。
- OSH ショートトレーニングを提供するために、ナショナル OSH トレーニングセンターを強化すべきである。
- インフォーマル労働者の保護を改善する方法を特定するために、例えば BOHS(基本産業保健サービス) の提供など、さらなる協議と研究が必要である。
- 長期的には、労働現場でOSH担当者として働くスタッフの数を増やすために、学士・修士レベルのOSHに関する研修があるべきである。産業保健医、産業保健師、産業衛生士の育成のため、OSH 衛生士、看護師、産業保健医のカリキュラムを整備する必要がある。
- 鉱業、エネルギー、農業（農薬を使用）セクター産業のスタッフにおいて、労働災害/疾病の種類と現在の生物学的および化学的リスクの影響を確立するための研究を実施する必要がある。
- ウェブサイトやソーシャルメディア、パンフレット、ポスターなど、いくつかのチャンネルを介して OSH 情報を広める必要がある。(情報としては、安全性、作業能力、労働衛生サービス、人間工学、職場のメンタルヘルス、化学物質の安全性などの学際的なトピックをカバーする)

5.3.3 日本政府からの OSH 従事者への支援ニーズ調査

- 産業保健医、産業保健師、産業保健看護師、産業衛生士、人間工学専門家、理学療法士などの学士課程における OSH のカリキュラム開発の支援。
- 産業保健医に特化した一般医師の短期研修の提供。
- OSH 短期研修を提供するために、全国の OSH 研修センターを強化する必要がある。
- 産業保健師、産業衛生士、人間工学専門家、理学療法士など、日本のような海外に留学するための OSH 研修のための奨学金の提供。

Assessment of occupational safety and health (OSH) in Lao PDR

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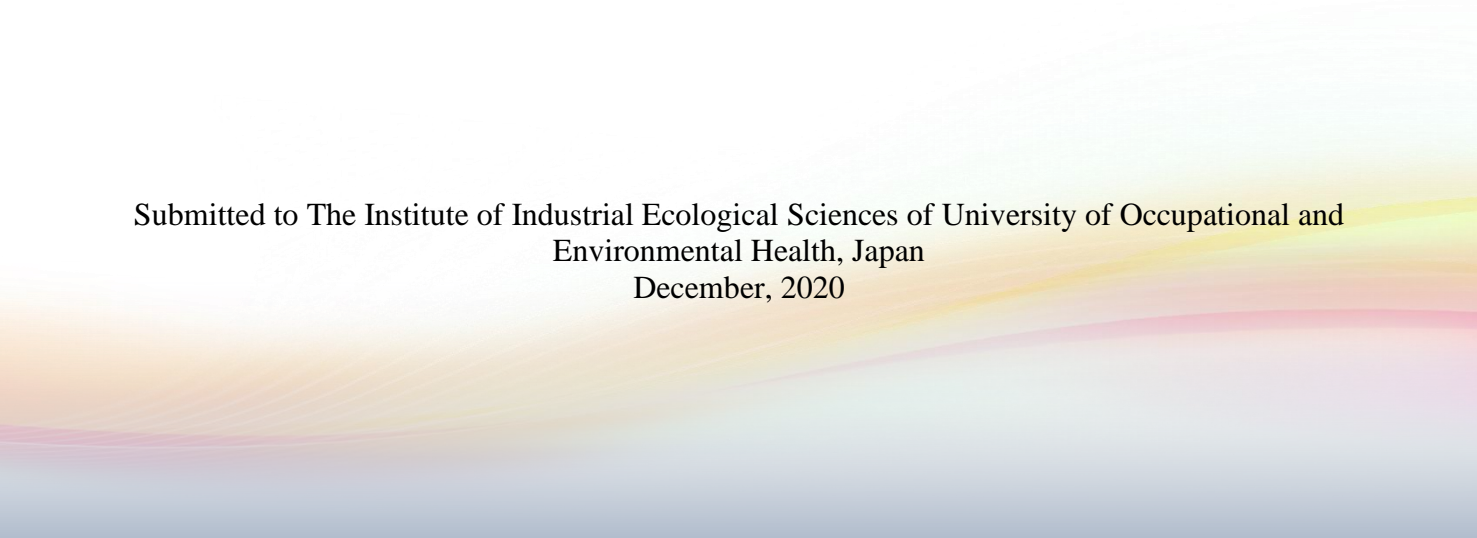


Table of Contents

Abbreviation	6
Executive Summary	9
Introduction.....	14
Objectives	
Methodology	
Key Informant Interviews.....	
Chapter 1 National Information	16
1.1 History Lao People’s Democratic Republic	16
1.1.1 Summary of country history	16
1.2 Religion and Ethnics	16
1.2.1 Number and percentage of religion and ethnics (including regional characteristics)..	16
1.2.2 Lifestyles and dietary restriction for culture and religion.....	18
1.3 Population	19
1.3.1 Current number of population, population transition, and population pyramid	19
1.3.2 Demography, literacy and other relevant information	20
1.4 Politics and Policy.....	21
1.4.1 Current political system	21
1.4.2 Current political party and results of a recent election	21
1.4.3 Main national policy and political challenges	22
1.5 Constitution and General Law System	24
1.5.1 Summary of constitution.....	24
1.5.2 Summary of general law system	25
1.6 Industry and Economy	25
1.6.1 Major industry.....	25
1.6.2 Economic status and employment scene.....	25
1.7 Labour Management relations, Contractors, Informal Sectors Workers and Migrants	27
1.7.1 Labour dispute and other labour-management relations.....	27
1.7.2 Trend of contractors, informal sector workers and migrants (international and domestic).....	28
1.8 Public Security, Disaster and Public Safety.....	28
1.8.1 Current status of security issues such as crimes and riots, occurrence of natural disasters and traffic accidents, etc.....	28
1.9 Relationship with Japan	31
1.9.1 Relations with Japan in politics and economy	31
1.9.2 Local status of Japanese companies.....	32
1.9.3 Status of Official Development Assistance (ODA) by Japanese government.....	32
Chapter 2: Healthcare and Public health.....	37
2.1 Status of Public Health, Disease, and Cause of Death.....	37
2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.	37
Non-communicable diseases.....	41
2.2 Training and Supply for Physicians and Healthcare Professionals	43
2.2.1 Educational system for healthcare professionals	43

2.2.2 List of universities for healthcare professionals	44
2.2.3 Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians).....	45
Health Work Force.....	45
2.3 Status and Quality of Healthcare	46
2.3.1 Status of healthcare settings (number and national/private)	46
Health services	46
2.3.2 Monitoring and evaluation of quality of healthcare (including international accreditation and certification)	47
2.4 Status of Public Health Agency	48
2.4.1 Status of public health center and relevant agencies, such as WHO office and other international organizations.....	48
Chapter 3 OSH framework	50
3.1 OSH Laws & Regulations.....	50
3.1.1 Major OSH laws & regulations and recent amendments.....	50
3.1.2 Other related legislations on safety, health and environment, and recent amendments	53
3.1.3 ILO conventions ratified.....	54
3.2 Mechanisms and Status for Law Enactments	55
3.2.1 Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities).....	55
3.3 Authorities or Body, Responsible for OSH	57
3.3.1 Authority or body, responsible for OSH.....	57
3.4 Mechanisms for Ensuring Compliance including the System of Inspection	60
3.4.1 Number and inspection status of labour inspection office.....	60
3.4.2 Utilization of private agency for inspection.....	63
3.4.3 Reporting and notification system for workplaces	64
3.5 Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases.....	65
3.5.1 Workmen's compensation insurance and social security schemes	65
3.5.2 Approval standards for occupational injuries and diseases	67
3.5.3 Occupational disease list.....	68
3.6 Workplace Organization for OSH Management.....	72
3.6.1 Workplace organization for OSH management by regulations, the approval standards for occupational injuries and diseases.....	72
3.6.2 OSH committee.....	72
3.6.3 OSH training at workplaces	73
3.7 Personnel engaged in the area of OSH	74
3.7.1 Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists	74
3.7.3 Minimum staffing standards for personnel engaged in the area of OSH.....	74
3.8 Regal Requirements for Workplace Activities for OSH Management.....	75
3.8.1 Regal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc.	75
3.8.2 Mechanisms to prevent industrial disaster protect environment and promote public safety	76

3.9 Education and Supply for Personnel engaged in the area of OSH	76
3.9.1 Educational system and contents for personnel engaged in the area of OSH.....	76
3.9.2 List of universities and training institute	77
3.9.3 Supply and availability for personnel engaged in the area of OSH.....	77
3.10 Activities and Involvement by International Organizations, Academic Institutes and Non-Governmental Organization.....	77
3.10.1 OSH activities and involvement by international organizations, academic institutes and other agencies, such as Non-Governmental Organization	77
3.11. Occupational Health Services including Industrial Hygiene	78
3.11.1 List of occupational health service providers and their service contents and quality (national/private).....	78
3.12 Support Mechanisms for Disadvantaged Group of Workers	80
3.12.1 Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors.....	80
Chapter 4: OSH level	81
4.1 National Policy and Strategies for OSH	81
4.1.1 Conditions, details and operational status of national policy, strategies and plans for OSH.....	81
4.2 Occupational Injury and Disease Statistics.....	85
4.2.1 Occupational injury and disease statistics.....	85
4.2.2 Coverage by reporting and compensation schemes and estimated occupational injury and disease	87
4.3 Legal Compliance Status	88
4.3.1 Legal compliance status for OSH regulations	88
4.4 Problems concerning OSH and Exposure to Specific Hazards	88
4.4.1 Problems concerning OSH in all and specific industries.....	88
4.4.2 Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries.....	89
4.5 Measures against Problems concerning OSH.....	90
4.5.1 OSH policies and programmes of organizations of employers and workers.....	90
4.5.2 Advantages and disadvantages of ongoing activities related to OSH at workplace	91
4.5.3 Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace.....	91
4.6 Researches in OSH	91
4.6.1 List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH	91
4.6.2 Main research items and projects in OSH research and which institutions implement these (national level / institutional level).....	92
4.7 Status for Personnel engaged in the area of OSH.....	93
4.7.1 Ability and challenges of personnel engaged in the area of OSH	93
4.7.2 Training and information for OSH personnel engaged in the area of OSH.....	93
4.8 Status for International Certification at Workplaces	95
4.8.1 Status for international certification at workplaces (e.g. ISO 45001).....	95
4.9 Worker's Awareness and Educational Levels regarding OSH.....	95

4.9.1 Worker's awareness and educational levels regarding OSH.....	95
Chapter 5 Analysis and action plan	96
5.1 Gaps analysis of existing national OSH systems and Recommendations of Action Points	96
5.1.1 Gaps analysis of existing national OSH systems.....	96
5.1.2 Recommendations of action points for national OSH systems.....	96
5.1.3 Support needs assessment of national OSH systems from Japanese government	97
5.2 Gaps analysis of current OSH Management at workplaces and Recommendations of Action Points.....	97
5.2.1 Gaps analysis of current OSH management at workplaces	97
5.2.2 Recommendations of action points for OSH management at workplaces.....	98
5.2.3 Support needs assessment of OSH management at workplaces from Japanese government	99
5.3 Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points.....	99
5.3.1 Gaps analysis of existing professional education for personnel engaged in the area of OSH.....	99
5.3.2 Recommendations of action points for personnel engaged in the area of OSH	100
5.3.3 Support needs assessment of personnel engaged in the area of OSH from Japanese government	101
Reference:	102

Abbreviation

ACL	Action with Lao Children
ADRA	Adventist Development and Relief Agency
AIDS	Acquired immunodeficiency syndrome
ACM	Asbestos Containing Material
ANC	Antenatal care
ARD	Asbestos Related Diseases
ASGM	Artisanal and Small Scale Gold Mining
ASEAN	Association of Southeast Asian Nations
ART	Antiretroviral therapy
BBC	British Broadcasting Corporation
BCG	Bacillus Calmette–Guérin
BEmONC	Basic emergency obstetric and newborn care
BOHS	Basic Occupational Health Services
CBM	Christian Blind mission
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
COPD	Chronic obstructive pulmonary disease
CMR	Center for Medical Rehabilitation
CT	Computerized tomography
DWCP	Decent Work Country Programme
GDP	Gross domestic product
COVID-19	Coronavirus Diseases 19
DHO	District Health Office
DHS	Demographic Health Survey
EPI	Expanded Programme on Immunization
ECG	Electrocardiogram
EKG	Electrocardiography
GIZ	Deutsche Gesellschaft für Technische Zusammenarbeit
GoL	Government of Laos
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HPA	Health Poverty Action
HIV	Human immunodeficiency viruses
HRH	Human Resource for Health
ILO	International Labour Organization
JICA	Japan International Cooperation Agency
JETRO	Japan External Trade Organization
JOVC	Japan Overseas Cooperation Volunteers
IR	Industry Relations
Lao PDR	Lao People’s Democratic Republic
LaoTPHI	Lao Public Health and Tropical Medicine
LDCs	Least developed countries
LEC	Lao Evangelical Church
LFTU	Lao Federation of Trade Union
LPRP	The Lao People’s Revolutionary Party

LNCCI	Lao National Chamber of Commerce and Industry
LRI	Lower Respiratory Infection
LSW	Labor Social Welfare
MAF	Ministry of Agriculture and Forestry
MCH	Mother and Child Health
MCNV	Medical Committee Netherland-Vietnam
MD	Medical Doctor
MOH	Ministry of Health
MoLSW	Ministry of Labour and Social Welfare
MoIC	Ministry of Industry and Commerce
MOFA	Ministry of Foreign Affairs
MPS	Ministry of Planning Service
MR	Minimum Requirement
MSDS	Material Safety Data Sheets
NCDs	Non-communicable Diseases
NA	National Assembly
NAFRI	National Agriculture and Forestry Research Institute
NGOs	Non-Governmental Organization
NOSH	National Occupational Safety and Health Center
NSSF	National Social Security Fund
NSEDP	National Socio-Economic Development Plan
OBGYN	Obstetrics and Gynaecology
OPD	Outpatient Department
ODA	Official Development Assistance
OSAC	Overseas Security Advisory Council
OSHNET	Occupational Safety and Health Network
OSH	Occupational Safety and Health
PHC	Primary Health Care
PPP	Public Private
PPE	Personal Protective Equipment
RTI	Road Traffic Injuries
SBA	Skilled Birth Attendant
SDGs	Sustainable Development Goals
SEZs	Special Economic Zones
SMEs	Small- and medium-sized enterprises
SSO	Social Security Organization
SSF	Social Security Fund
TB	Tuberculosis
UHC	Universal Health Coverage
UOEH	University of Occupational and Environmental Health
UNESCAP	The United Nations Economic and Social Commission for Asia and the Pacific
UNICEF	The United Nations Children's Fund
UNESCO	The United Nations Educational, Scientific and Cultural Organization
US	United States

USAID	The United States Agency for International Development
UHS	University of Health Sciences
UXO	Unexploded ordnance
VZF	Vision Zero Fund
WFP	World Food Programme
WISE	Work Improvement for Small Enterprises
WISCON	Work Improvement in Small Construction
WHO	World Health Organization

Executive Summary

A national occupational health system profile is critical for policy-making and programme development at the national and international levels, and is included in the WHO Global Plan of Action on Workers' Health and the ILO Promotional Framework for Occupational Safety and Health Convention. This document provides an overall picture of the current status of governance for workers' health in Lao PDR, focusing on the national policy framework, priorities for action, objectives and targets, mechanisms for implementation, and promotion of workers' health. The objective of this paper is to assess of current situation of Occupational Health and Safety (OHS) in Lao Peoples Democratic Republic" ("Assessment") to identify the country needs in OHS area and further to provide support based on country needs and to conduct OSH legal gap analysis, and then successively develop the technical supports.

This study is a literature review with data validation and gap analysis undertaken through the following: literature search using various search engines such as Google Scholar, MEDLINE, PubMed and websites of the World Health Organization and International Labor Organization regarding global occupational health and safety frameworks. In addition, key informant interviews were conducted to fully understand the scope of the roles and responsibilities of the stakeholders involved in OSH including ILO, WHO, Department of Labour, MOLSW, Lao National Chamber of Commerce and Industry (LNCCI), Lao Federation of Trade Unions, Department of hygiene, MoH, National Social Security Fund (NSSF), NAFRI, Ministry of Industry and Commerce.

Basic country information

Lao PDR has a population of 7,304,508 of which 35.7% of the population is urban (2,600,131 people in 2020) and with 4 major ethnicities (Lao-Tai, Mone-Kmer, Chino-Tibetan and Hmong-Mien), The nation's population is the youngest in ASEAN, with 32% of the population aged 14 years or younger. The working population aged 15–64 years accounts for 64% of the total, with another 4% of the total population aged 65 years and older.

Lao PDR is moving to a middle-income status country. The country has experienced strong economic growth, and has reduced poverty. Economic growth averaged 7% in year 2016, and Laos' growth has been amongst the fastest in Asia, averaging nearly 8% per year for most of the last decade, although growth has declined over the past year. GDP composition in the agriculture sector was 27%, manufacturing (11%), power and mining (18%), construction and services (44%). The economy has benefited from high-profile foreign direct investment in hydropower dams along the Mekong River, copper and gold mining, logging, and construction, although some projects in these industries have drawn criticism for their environmental impacts. The Lao labour market is predominantly rural and agrarian, with farming and allied activities accounting for more than 66% of all employment and the manufacturing (7%), power and mining (1%), construction and services (26%).

Laos is exposed to natural hazards such as floods, typhoons, cyclones, drought, and earthquakes. and is vulnerable to recurrent, sudden-onset and slow onset natural disasters with flooding, storms and typhoons having a large effect on the population. The country remains highly vulnerable to agricultural shocks and natural disasters.

Health system and public health services

The healthcare system consists of 1) Public healthcare system (predominant); 2) Private healthcare system (attendance increase); 3) Joint public-private healthcare system (PPP).

Life expectancy is 67.9 in 2019. The total fertility rate reduced from 6.3 to 2.7 between 2011 to 2017 and significant have been made in child mortality, declining from 51 per 1000 live births in 2016 to 34 per 1000 live births in 2019 (MOH, 2020). The under 5 years old mortality rate per 1000 live births has also declined. While the maternal mortality ratio (MMR) decreased from 206 (in 2016) to 167 per 100 000 live births in 2019, it remains high compared to the rest of the region. The nutritional status of children under 5 years remains challenging and a priority for the government. For instance, 32.5% of children under the age of five have low height for their age (stunting) and 20.5% have low weight for their age (underweight) in 2019.

OSH framework

1. OSH Laws & Regulations

Lao PDR is in the process of developing the national OSH laws and regulations under MoLSW. There are eight laws related to OSH, and other related occupational safety and health regulations, which are Labour law modified in 1994 and 2013, Social security law modified in 2013 and 2018, Law on Hygiene, Disease Prevention and Health Promotion No. 04/NA dated 10 April 2001, Law on Mining No. 04-97/NA dated 12 April 1997, Law on Manufacturing, Agreement of National Assembly No. 01-99/NA, dated 3 April 1999, Law on Construction No. 159/PO dated 16 December 2009, Law on Industrial Processing No. 01/99/NA dated 3 April 1999 and Law on Agriculture No. 01/98/NA, dated 10 October 1998.

2. ILO conventions ratified

Laos has been a member of the ILO since 1964. The country has ratified a total of ten ILO Conventions, of which 9 are in force, No Convention has been denounced; 1 instrument abrogated; none have been ratified in the past 12 months.

3. Authorities or Body, Responsible for OSH

The Labour Management Department comes under the Ministry of Labour & Social Welfare and tasked with protection & prevention in Occupational Safety & Health, which inhabiting with Lao Federation of Trade Unions on behalf of representing of employees, Lao National Chamber of Commerce and Industry which is the representing of employers in Lao PDR. Herein called “Tripartite Organization” which is the main counterpart of Labour Management Department. Apart from those, there is still got relevant sectors which are from the Central to Local Authority for instance: Ministry of Public Health, Ministry of Industry and Commerce, Ministry of Public Works & Transportation, Ministry of Energy & Mine, Ministry of Education, Water Resources & Environmental Organization.

Currently, there are 87 labor inspectors in Lao PDR, of which 9 are in the Department of Labor, 13 in Vientiane Capital, 5 in each major province such as Savannakhet, Champassak and Luang Prabang, and 3 in each remaining province.

4. Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases

The National Assembly endorsed a new Social Security Law and revised in 2019, which aims to harmonize existing contributory social security schemes for the private, and the public sectors, and which for the first time, allows individuals outside the formal economy to become voluntarily contributing members, providing access to health care along with benefits in disability, sickness, maternity and old age. The Social Security law is applied to enterprises, which employ more than 10 workers, although all employers with one or more employees are encouraged to apply. The main health insurance benefits include outpatient services, in-patient services, emergency services, and medical care in case of employment injury of occupational diseases.

6. Occupational disease list

The National list for occupational diseases in Lao PDR has been developed using ILO list of Occupational Diseases was revised in 2010. The first National list of Occupational Diseases for Lao PDR was developed for the purpose of prevention, recording, notification and compensation of occupational diseases in the country. Now there are four classifications of occupational diseases including 1) Diseases caused by agents, 2) Diseases caused by target organ, 3) Occupational cancer, and 4) Others, but the implementation of the list of Occupational Diseases is not reinforced.

7. Workplace Organization for OSH Management

Lao PDR has the OSH committee, which are the National OSH committee and OSH provincial committee. The National Committee of Occupational Safety and Health is nominated by the Prime Minister based on the proposal of the Ministry of Labor and Social Welfare, which functions as a secretariat of the government for developing policy, law, rules, regulations, monitoring and supporting relevant ministries, organizations and other sectors in implementing the OSH nationwide with secretariat support from the national OSH center. The provincial governor based on the proposal of the Provincial Labor and Social Welfare department nominates the Provincial Committee of Occupational Safety and Health.

OSH level

1. National Policy and Strategies for OSH

Lao occupational safety and health (OSH) is regulated by a wide range of national policy, strategies and plans for OSH, in particular: 1st National OSH Strategy (2005-2010); 2nd National OSH Strategy (2011-2015); Decree on Occupational Safety and Health, No 22/Gov, dated 5/2/2019 as developed a set of specific rules on OSH; Ministerial Decision on OSH in the construction site, No 3006/MoLSW, dated 21/8/2013.

2. Work-related injuries and Occupational Diseases Statistic

There is no recording and reporting system of occupational accidents and injuries. According to the OSH decree however, the OSH unit must report occupational accidents and diseases to the labour unit and labour management authority for record, improving and seeking the solutions periodically.

3. Coverage by reporting and compensation schemes

The Social Security Scheme tries to compensate and cover all kinds of occupational accidents and injuries for those who have maintained their contribution to the Social Security Scheme. Following

an occupational injury, the employer must take the injured person to the hospital and inform the Social Security organization (SSO) and record the case. In the case of a major injury, the police should be informed and a report made. This data however is incomplete and not all enterprises with more than 10 employees report injuries. In 2019, SSO featured 2,287 member enterprises with 113,714 insured employees and 7087 voluntary insured persons. Moreover, the total number of beneficiaries (including persons and their dependents) covered by the schemes was 258,102 persons.

4. Legal compliance status for OSH regulations

Compliance with OSH regulations ensure a workplace free from serious recognized hazards and complies with standards, rules and regulations issued under the OSH decree. The Labor management department, and the Occupational Safety and Health committee oversees compliance with the OSH regulations, although compliance is inconsistent.

5. Human resources for OSH

The main organizations providing OSH training are the National Occupational Safety and Health Center (NOSH Center), the Lao National Chamber of Commerce and Industry (LNCCI), ILO, the Lao Federation of Trade Union and the Ministry of Industry and Handicraft. There are no long term training for occupational physicians, occupational hygienists, nurses and others.

Gap Analysis

The gaps identified in this report related to] governance are: (1) Weak implementation of OSH legislative framework, (2) Weak implementation of the OSH inspection, (3) Inadequate awareness on OHS mandate of some enterprises, (4) Lack of coverage of the smallest enterprises by OSH, (5) Poor coverage of SSO for the small and medium enterprises, (6) Lack of recording and reporting system of Occupational injuries and accidents, (7) Lack of employer's awareness on OSH at the working place, (8) Lack of development of OSH committee and OSH standard at some working places, (9) Lack of development of OSH policy, OSH management system documentation, communication, planning and implementation at the working places, (10) Limited of OSH officers at the working places, (11) Lack of health promotion and well-being at workplace, (12) Inadequate of OSH officers and inspectors in terms of quantity and quality, (13) Irregular and no continuing short term training of OSH, (14) No long-term training of OSH physicians, nurses, hygienists and others.

Recommendation

- The action points for national OSH systems consists of: 1) Increased enforcement of the Labor law and OSH Decree, 2) Increased enforcement the OSH inspection and monitoring, 3) Efforts will also be made to link the National OSH programme, 4) Need for Information campaign at governmental level, 5) Increased enforcement of the law of Social Security, 6) need to improve the OSH statistics and set up the notification and registration system for occupational accidents and occupational diseases, 7) legislate the occupational diseases, and list of occupational diseases, and 8) Strengthening OSH inspector management system
- The action points for OSH management at workplaces consists of: 1) implement the Decree of OSH at their working place, 2) set up an OSH policy, organizing, planning and implementation, evaluation and action improvement, 3) develop of new managerial cultures and modern leadership, giving high value to OSH and well-being at work, 4)

Promote the concept of Basic Occupational Health Services (BOHS) delivery, 5) developed and approved OSH standard and National Guidelines on occupational safety and health management systems, 6) information campaign for World Day Safety and Health at the working place, 7) interactive educational programme based on a training of trainer's, 8) set up the notification and recording system of the work-related injuries and occupational diseases at the working place

- The action points for personnel engaged in the area of OSH consists of: 1) The employers must provide the general induction training to all employee, 2) disseminated OSH information through several channels, 3) short training courses to safety managers, 4) develop recognition and identification of occupational diseases, 5) training of medical practitioners on the diagnosis of occupational diseases, 6) short training courses (3 to 6 months) to produce OSH staff to build the capacity of OSH officers and OSH inspectors, 7) Develop the long term training of curriculum of OSH hygienists, OSH practitioners, 8) strengthening the National OSH Training center, 9) improve protection for informal workers, e.g. through the provision of BOHS, and 10) Studies of the types of occupational injuries and diseases and the impact of the current biological and chemical risks among staff in the water sector industry.

Introduction

The Institute of Industrial Ecological Sciences of University of Occupational and Environmental Health, Japan (hereinafter called UOEH Japan) was designated as WHO Collaborating Center (CC) on Occupational Health (OH) in 1988. The one of Terms of Reference of current designation as WHO CC is to support strengthening the base of the occupational health in Mekong countries including Vietnam, Cambodia and Laos. In past 3 years, UOEH Japan supported Vietnam to improve the capacity for diagnosing and preventing occupational lung diseases and management of dust workplace. In 2020, UOEH Japan provided technical support to Cambodia for the development of National profile on Occupational Health to identify the country's needs in occupational health and safety. In 2019, UOEH Japan collaborated with WHO Laos and organized a two-day workshop on improving the capacity of doctors to diagnose occupational lung diseases. Several major challenges in occupational health area were identified but evidence is limited. At the same time, Prof. Koji Mori received a financial support from the Ministry of Health, Labour and Welfare of Japan to identify what kind of support is needed in occupational health and safety area of Asian countries. UOEH Japan team planned to visit Laos on an assessment mission but due to COVID-19 outbreak has worked with WHO to assess the current situation of occupational health and safety in Laos to identify the country needs in this area. WHO Laos supported to intermediate the communication with responsible person from Ministry of Health of Laos (MOH Laos) and School of Public Health. School of Public Health agreed to develop the current report and analysis.

Objectives

The Objective of this consultancy is to conduct the “Assessment of current situation of Occupational Health and Safety (OHS) in Lao Peoples Democratic Republic” (“Assessment”) to identify the country needs in OHS area and further to provide support based on country needs and to conduct OSH legal gap analysis, and then successively develop OSH Bill. The review will provide information on gaps between existing national legislations, regulations, policies and programmes, and the requirements of ILO Conventions.

Methodology

The study is a literature review. Data validation and gap analysis were undertaken through a literature search on the following search engines Google Scholar, MEDLINE, PubMed and websites of the World Health Organization and International Labor Organization regarding global occupational health and safety framework was also done. Key words used were “occupational health and safety,” “national profile,” and “stakeholder framework.” Articles included were those in English and Lao language. A review of agencies' mandates was also conducted to identify occupational health and safety stakeholders and their functions. Collection of information in accordance with the checklist provided by the WHO CC. Methods of information collection can be either review of available documents or interview with relevant stakeholders.

Key Informant Interviews

The key informant interviews were conducted to fully understand the scope of the roles and responsibilities of the stakeholders involving in OSH such as ILO, WHO, Department of Labour, MOLSW, Lao National Chamber of Commerce and Industry (LNCCI), Lao Federation of Trade

Unions, Department of hygiene, MoH, National Social Security Fund (NSSF), NAFRI, Ministry of Industry and Commerce. The questions in the in-depth interview included the following topics specifically on Occupational Health and Safety: 1) Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities); 2) Authority or body, responsible for OSH; 3) Number and inspection status of labour inspection office; 4) Utilization of private agency for inspection; 5) Reporting and notification system for workplaces; 6) Occupational injury and disease statistics; 7) Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists; 8) Regal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc, 10) Mechanisms to prevent industrial disaster protect environment and promote public safety; 11) Supply and availability for personnel engaged in the area of OSH; OSH activities and involvement by international organizations, academic insistutes and other agencies, such as Non-Governmental Organization; 12) List of occupational health service providers and their service contents and quality (national/private); 13) Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors.

Chapter 1 National Information

1.1 History Lao People's Democratic Republic

1.1.1 Summary of country history

Lao People's Democratic Republic (Lao PDR), commonly known as Laos, is situated within the ASEAN region and has a rich history. Chao Fa Ngum was the first king of what is now modern day who successfully united numerous medieval city states and subsequently founded the Lanexang Kingdom, that encompassed the Mekong River in the middle from North to South ([Asia Pacific Parliamentary Forum, 2009](#)).

Luang Prabang was the capital city of the Lanexang Kingdom; which has been listed as a World Heritage Site. In the middle of the 16th century, the capital city was changed from Luang Prabang to Vientiane. Eying on the Mekong River, this move facilitated economic and cultural growth. In the middle of the 17th century, the Lanexang Kingdom reached its golden age and started the trade relation with foreigners. The eighteenth century brought the decline of the Lanexang monarchy. The Kingdom split into three hostile dynasties and was invaded and controlled by Siamese feudalism. Strategically located and rich with natural resources, in the 18th and 19th centuries Laos became a target of neighbouring countries and Western powers. At the end of the 19th century, the country became a colony of France ([Asia Pacific Parliamentary Forum, 2009](#)).

Following the end of World War II in 1945, Laos declared Independence. The French returned in Under the [Geneva Accords](#) of 1954, Laos came under the rule of the Lao royal government although experienced internal conflict between different factions. The country came embroiled in the Vietnam War which saw a large US presence. On 2nd December 1975 following the US defeat, Lao became the independent Lao People's Democratic Republic ([Asia Pacific Parliamentary Forum, 2009](#)). Initially under a command economy, in 1986, the Lao PDR began to carry out a comprehensive renovation policy, shifting from a centralized economy to a market-oriented economy, carrying out marketing mechanism, opening up the country and cooperation with foreign countries. Today, the Lao PDR has the political stability, constant economic growth and favourable conditions of investment ([Asia Pacific Parliamentary Forum, 2009](#)).

1.2 Religion and Ethnicity

1.2.1 Number and percentage of religion and ethnicity (including regional characteristics)

Lao PDR is the most ethnically diverse country in Southeast Asia. Lao people comprise four main ethno-linguistic families: Lao-Tai 62.4%, Mon-Khmer 23.7%, Hmong-Iu Mien 9.7 %, and Chinese-Tibetan 2.9% ([Lao Statistics Bureau, 2016](#)), which are officially divided into 50 ethnic groups ([Kongphaly, 2018](#)). The 50 ethnic groups in the country can be further broken down into more than 200 ethnic subgroups ([King & Dominique van de Walle, 2010](#)).

Figure 1: Ethno-Linguistic Groups in Lao PDR (2005)

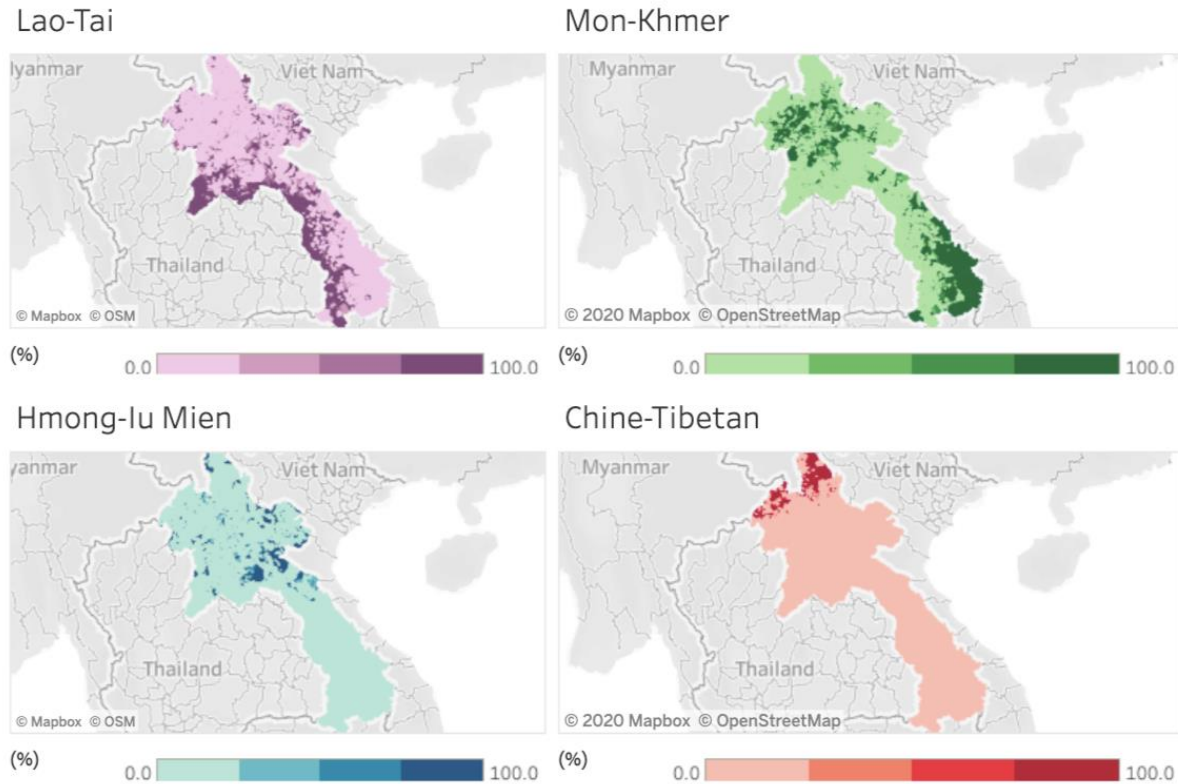


Chart by: *Open Development Laos*. Source: www.decide.la ([Lao-Tai](#), [Mon-Khmer](#), [Hmong-lumien](#), and [Chine-Tibetan](#))

The 50 ethnic groups are geographically dispersed and were historically referenced in terms of three topographic locations: the Lao Loum (lowlands), Lao Theung (mid-lands), and Lao Soung (uplands). These categorizations also implied traditional agricultural production systems, with lowland peoples generally cultivating paddy rice, and midland and upland peoples pursuing shifting cultivation practices (Ministry of Health, 2015).

The Lao-Tai ethno-linguistic family is composed of eight individual ethnic groups, and generally inhabits lowland areas. The Mon-Khmer family includes 33 individual ethnic groups. There are two ethnic groups belonging to the Hmong-lu Mien ethno-linguistic family, and seven groups belonging to the Chine-Tibetan family. Both Hmong-lu Mien and Chine-Tibetan peoples have traditionally inhabited the uplands of Laos. Buddhism is the most common religion in Lao-Tai groups, while animism is prevalent in non-Lao-Tai groups (Minority Rights Group, 2018). *Ethno-Linguistic Families in Laos are comprised of 50 sub-ethnics as below:*

Figure 2: Trees of Ethno-Linguistic Families in Laos

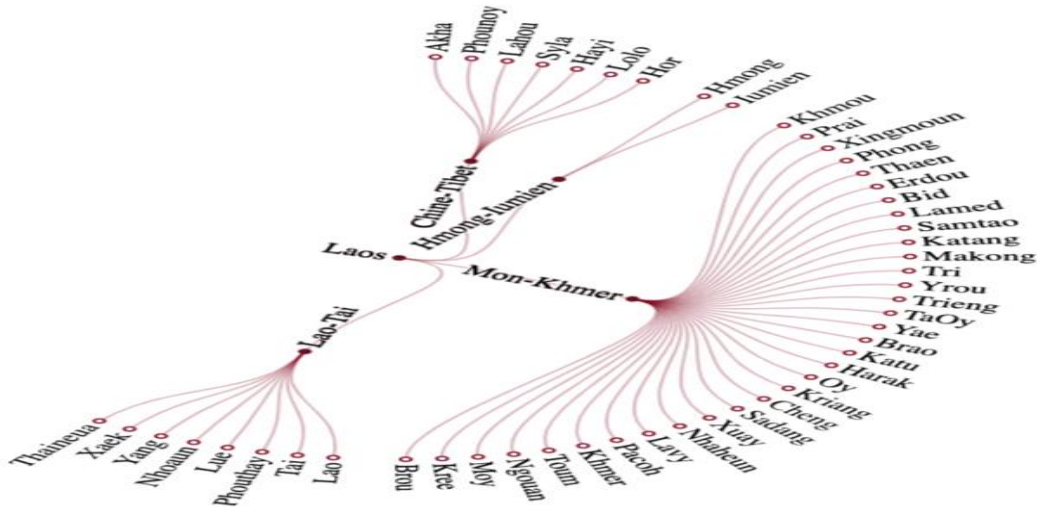


Chart: *Trees of ethno-linguistic groups 2018*. Created by: *Open Development Laos*. Source: Douangtavanh Kongphaly. 2018. “[List of all ethnicity in Laos](#).” License: [MIT](#)

1.2.2 Lifestyles and dietary restriction for culture and religion

The history and culture of the country is represented in temples and monuments. Almost every town and predominantly Lao-Tai village has a Buddhist temple (wat or vat). Most lowland Lao and some midland groups practice Theravada Buddhism, but also believe in spirits of places or of deceased persons. Upland and most midland ethnic groups are animist, with religious practices oriented towards protective or guardian spirits commonly associated with places or with a family or clan. Shamans or other spirit practitioners are recognized and respected for their divinatory and healing powers ([International Religious Freedom, 2009](#)).

The Government officially recognizes four religions: Buddhism, Christianity, Islam, and the Baha'i Faith. Recognized Christian groups include the Catholic Church, the LEC, and the Seventh-day Adventist Church. The Government maintains, however restrictions on the publication of non-Buddhist religious materials and Buddhism is excluded from many of the Decree 92 restrictions placed on other religions with Theravada Buddhism holding an elevated status ([International Religious Freedom, 2009](#)).

The hill tribes (15%) mostly practice animism mixed with ancestor worship. A small number have converted to Christianity. Some of the remaining members of the French-educated elite are also Christians. Proselytizing is frowned upon by the government and missionaries and evangelical groups have not made as much headway in Laos as they have in other places. There are a few Muslims. They are mostly of Arab, South Asian and Cham descent ([International Religious Freedom, 2009](#)).

Laos's ethnic groups other than the majority Lao ethnic peoples, generally live in more remote and rural areas. Upland peoples continue to practice agriculture using the traditional approach of shifting cultivation. Properly practiced, this method of farming endorses the sustainable use of forestlands. For example, rotational farming with proper management systems, without encroaching on new forestlands, can be environmentally sustainable and even carbon neutral ([Minority Rights Group, 2018](#); [Kenney-Lazar, M. 2013](#); [Erni & Christian, 2015](#)). Around 67% of

the country's population are Buddhist, other religions including animism accounted for about 30.9%, 1.5% are Christians and less than 1% are Muslims and Bahai. Catholics make up 0.6% of the population. The majority of Laotian also believe in spirits. Most Buddhist are lowland Lao and some tribal groups ([International Religious Freedom, 2009](#)).

Dietary restriction

Food restrictions during pregnancy and postpartum are practiced in Lao PDR, and vary by ethnic group. The practice of “eating down” to avoid a perceived difficult delivery of a large baby is fairly common and, while some women report reducing vigorous physical activity and eating more meat or fruit during pregnancy, pregnancy and childbirth are not widely associated with extra care or attention ([USAID Nurture 2016](#); [UNICEF 2017](#)). Specific taboos and practices vary by ethnolinguistic group, but one common restriction is for women to limit their diets to rice, salt, and ginger or galangal for up to one month after delivery ([Ministry of Agriculture and Forestry 2013](#); [USAID Nurture 2016](#)). Other postpartum taboos include no meats that are white in colour, no fruit or vegetables, and no foods that are fermented, oily, sour, raw, or spicy ([USAID Nurture 2016](#); [UNICEF 2017](#)).

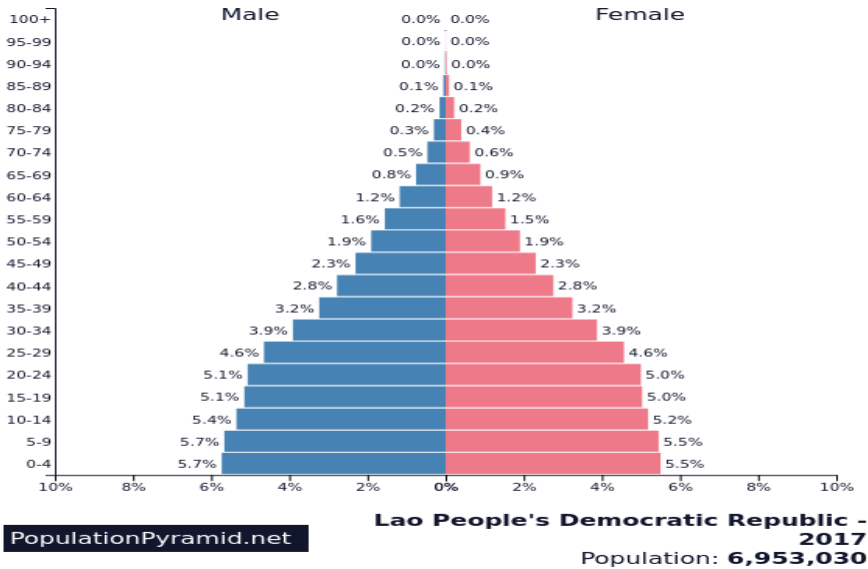
1.3 Population

1.3.1 Current number of population, population transition, and population pyramid

The current population of the Lao People's Democratic Republic is estimated to be 7,304,508, making it equivalent to 0.09% of the total world population and ranking number 105 in the list of countries (and dependencies) by population. The population density in Laos is 32 per Km² (82 people per mi²). The total land area is 230,800 Km² (89,112 sq. miles); while 35.7% of the population is urban (2,600,131 people in 2020) ([Worldometer, 2020](#)). The median age in Laos is 24.4 years.

The rural population accounts for 67% of the national total, population, most of whom have road access ([Lao Statistical Bureau, 2016](#)). The Lao Loum lives in the relatively densely populated lowlands on the eastern bank of the Mekong River. The Lao Theung lives in the lower mountain ranges in the south. Ethnic minority groups live in the higher mountain areas (Jane's by IHS Markit, 2017). The nation's population is the youngest in ASEAN, with 32% of the population aged 14 years or younger. The working population aged 15–64 years accounted for 64% of the total, with another 4% of the total population aged 65 years and older. In 2015, the total dependency ratio for every 100 people of working age was 57 people, down from 77 in 2005 ([Lao Statistical Bureau, 2016](#)).

Figure 3: Lao Population Pyramid



1.3.2 Demography, literacy and other relevant information

Literacy is defined as the “ability to identify, understand, interpret, create, communicate and compute, use printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society (UNESCO, 2005).

As of 2015, the literacy rate of the population aged 15 and above in Lao PDR was 85% with a large gender gap. The male population was found to be 90% literate, while only 80% for females were. Literacy levels were also along the urban-rural dimension. Both male and female populations living in urban areas have literacy levels above 90%. The levels are lower however in rural areas with roads and lowest in those areas without roads. the gender gap is also largest in rural areas with the lowest literacy rate among the female population living in rural areas without roads (Lao Statistical Bureau, 2016).

Literacy among the various ethnic groups that comprise Lao society is unequal (Lao Statistical Bureau, 2016). Education is generally provided in the official Lao language, rather than the spoken languages of different ethnic groups, which can cause challenges for non-Lao ethnic students. While the Lao government seems to view learning Lao language as a way to reduce educational inequalities, many civil society organizations see promotion of Lao language instruction as a barrier to ethnic children’s education in itself (Ministry of Education and Sports, 2015; King and Walle, 2010).

While cultural traits may explain some variations, socio-economic factors and geographical location that affect access to education may also have an impact. For example, in some ethnic groups proportions who have never attended school hit at least 50%, such as Lahou (63%), Akha (50%), Tri (54%), Katang (41%) and a few others. Figure 4 shows a comparison of literacy levels among the population grouped into main ethnic groups. The predominantly major group, Lao-Tai, had the highest literacy rate, 95% and 92%, for males and females, respectively. Mon-Khmer and Hmong-lewmien, the second and third largest groups, have similar literacy levels (71.1% and

69.8%, respectively). The lowest literacy was observed among the China-Tibet ethnic group at 46.8%.

Figure 4: Literacy Rates by Ethno-linguistic Group

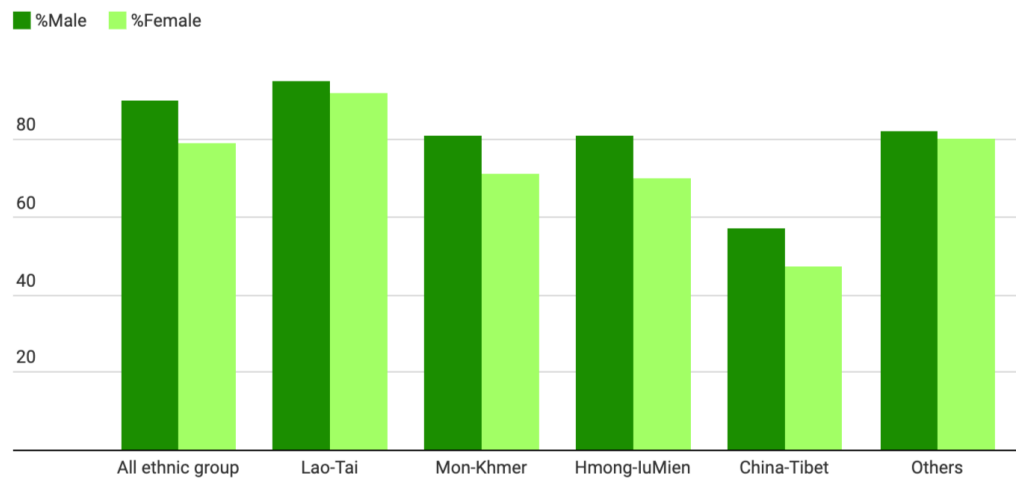


Chart: Open Development Laos Source: [Lao Statistic Bureau](#) [Get the data](#)
 Source: <https://laos.opendevdevelopmentmekong.net/topics/ethnic-minorities-and-indigenous-people/>

1.4 Politics and Policy

1.4.1 Current political system

Laos' first, French-written and monarchical constitution was promulgated on May 11, 1947 and declared it to be an independent state within the French Union. The Lao People's Revolutionary Party (LPRP) provides Lao with government stability and leadership; however some policy issues exist. The main policy issues are the administration of the opening of the economy to foreign investment beyond China and ASEAN to the United States, the European Union, Japan, and South Korea, and advancing transportation connections, due to its landlocked position, which will allow Lao to trade effectually with other nations. Continual examinations of laws and investment policies in Lao emphasize the ongoing corruption and expropriation risks, which are present in Laos (Simon Creak & Keith Barney, 2018).

According to the government of Laos (2020a), the political movement in the country is related to the working mechanism of the three major operating organizations of the country. The three major operating organizations are 1) the central legislative organization (national assembly), 2) the central administrative organization (president and government), and 3) the central Judiciary organization (courts and public prosecutors).

1.4.2 Current political party and results of a recent election

The government is a one-party communist state, led by the Lao People's Revolutionary Party (LPRP). Lao has been ruled by the LPRP since 1975. As a traditional communist state, Lao's top decision-making body is the LPRP's Politburo and the military holds a prominent function in politics (BBC, 2020).

The President is elected by the National Assembly (NA) for a five-year term. The Prime Minister and the Council of Ministers are appointed by the president with the approval of the National Assembly for a five-year term. The most recent election took place in March 2016. The Party Congress is held every five years, which elects a new Politburo. The 10th LPRP Congress concluded in January 2016, electing Bounnhang Vorachith as the new party Secretary-General. The LPRP leader also becomes the country's president is Excellency Mr. Bounnhang Vorachith. The NA also elected Thongloun Sisoulith, the second-ranked politburo member, as prime minister in April 2016. Sisoulith runs the government while Vorachith is primarily concerned with heading the LPRP (BBC, 2020; Creak, & Sayalath, 2017). Internal LPRP factions divide according to whether they lean more towards China or Vietnam. The next election for Laotian National Assembly is expected to be in March, 2021 (National Assembly, 2020).

1.4.3 Main national policy and political challenges

Each national policy is approved by the minister of the responsible ministry or institution. There are nineteen ministries and institutions that issue all national policies, they are Ministry of 1) Education and Sport, 2) Foreign Affairs, 3) Finance, 4) Industry and Commerce, 5) Natural Resources and Environment, 6) Agriculture and Forestry, 7) Health, 8) Planning and Investment, 9) Labor and Social Well Fare, 10) Science and Technology, 11) Road and Transportation, 12) Information - Culture and Tourism, 13) Post and Communication, 14) National Defense, 15) National Security, 16) National Affairs, 17) Power and Mines, 18) National Bank, and 19) Ministry of Justice. There are twenty-six national policies in Laos that could be available online as followed (Government of Laos, 2020b).

Table 1 shows the main National Policies in Lao PDR. During the past, the Lao government endorsed several policies related to different Ministry lines. The LPRP governs policy within the Politburo and Central Committee; however significant policy resolutions may enlist the actions of the Council of Ministers and NA.

Table 1: Main National Policies in Lao PDR

No	Date approval	Name of Policies
1	04/07/2016	National Policies on Energy Saving and Protection
2	05/01/2016	Vision to 2030, strategy to 2025 and VIII th development plan of education and sports 5 years (2016-2020)
3	10/03/2015	Strategy of development of Capital Market, Lao PDR (2016-2025)
4	04/11/2014	Strategy of sustainable development of the socio-environment in the hydropower sector.
5	05/09/2014	Strategy of development health staff to 2020
6	05/09/2014	National Action Plan of water supply and sanitation in the rural areas
7	05/09/2014	Strategy of development and National Action plan on Nutrition

8	05/09/2014	National Policy on the Health Impact Assessment
9	05/09/2014	Development Framework in the education sector 2009-2015
10	05/09/2014	National Policies on Population and Development
11	05/09/2014	Strategy of development of National Statistic System- 2010-2020
12	30/03/2014	Policy on Diseases Surveillance and control of Non-Communicable Diseases
13	26/09/2013	Strategy of anticorruption to 2020
14	22/06/2012	National Strategic Plan for Unexploded Ordnance for 2011 to 2020 "Path to Security II"
15	31/03/2012	Second Strategic Plan for the Advancement of Women in the Education and Sports to 2015
16	06/03/2012	4 years Strategic Plan of Department Costumers, 2012-2017
17	29/02/2012	National Strategic Plan for the Advancement of Women 2011-2015
18	12/11/2011	Strategy of development of special zone and specific economic zone from 2011-2020.
19	07/11/2011	Lao PDR Civil Service Management Strategy to 2020
20	01/11/2010	Management Plan and Allocation of Khun Xe-Phong Ma NPA, Bualapha District, Khammouane Province
21	01/11/2010	Management and Management Plan of Pha Tham Binh Protected Area, Bualapha District, Khammouane Province
22	17/07/2010	Education Administrator and Management Development Plan for 2011-2015
23	25/01/2009	National Policy on Information Communication Technology
24	01/03/2007	National Education System Reform Strategy 2006-2015
25	02/02/2006	The Sixth Five-Year Plan for the Development of Industry and Handicrafts (2006-2010)

The LPRP exercises democratic centralism, demanding the undisputed support of party leaders in all resolutions. Policy is established and executed by the LPRP Politburo. The party has a membership roll of approximately 3% of the populace. The greatest structural constraint on effective governance in Laos is been geography. Another significant constraint is the low level of human resource development. Laos's civil society traditions are very weak, with a regime committed to making the LPRP the "nucleus" of the political system rather than encouraging autonomous political participation. The long-term aims of the LPRP politburo and central committee are preserving the current system and developing the economy and raise living standards ([Bertelsmann Stiftung, 2020](#)).

1.5 Constitution and General Law System

1.5.1 Summary of constitution

After the Lao People's Democratic Republic was established, the party and government did not raise constitutional issues as is focused on protecting and building a socialist nation. More recently the state has strengthened the people's right to self-determination in socio-economic development based on the realities and special features of the country; make people politically aware, contribute to building the national economic base. Through the process of evolution of development - economic made a focus on constitutional matters important. In August 14, 1991, the Constitution was adopted by the Assembly and was promulgated by the Presidential Government on 15 August 1991 ([Government of Laos, 2020c](#)).

The Constitution is important to the development of the country and provides the basis for the nation to move towards state governance, social governance by the constitution and the rule of law and serves the interests of ethnic groups. basic rights and obligations of citizens are clearly defined and enshrined in the Constitution ([Government of Laos, 2020c](#)). Based on [Government of Laos \(2020c\)](#), the Constitution is the basic law of the Lao PDR, expressing the intentions of the multi-ethnic Lao people of all walks of life and determine the political, socio-economic regime and the basic obligations of the people and the machinery of the Lao PDR. Therefore, the Constitution of Lao PDR contains the following key features:

The real nature of the class of the Constitution: The Constitution of the Lao PDR is a constitution that serves the common interests of the multi-ethnic Lao people, because all power belongs to the people in accordance with the people's democracy.

The constitution is an operational program: The Constitution not only summarizes the turning point in history and the results of the revolution, but also sets out a long-term direction for the future. The Constitution establishes the aspirations of the people of all ethnic groups to continue and expand the people's democracy, laying the foundation for socialist progress in the future.

The constitution turns the party's policy guidelines into a state regime: The Constitution is closely linked to the political party and the Party's policy guidelines. The resolution of the Fifth National Congress of the Party set out to continue to build and expand the people's democracy, lay the foundations for building socialism in the future, the basic content of the resolution of the Fifth National Congress has entered into the Constitution. The state has carefully implemented the party's policy guidelines as a basic rule.

The constitution is the basic rule: The Constitution is at the heart of Lao PDR's laws. The Constitution sets out the political system, the state apparatus sets out the principles, issues that cover the most important issues of the people's democracy and the legal basis for the establishment of the legal system of the Lao PDR.

According to the [Government of Laos \(2020c\)](#), the Constitution has the role of both protecting and building: protecting the people's democracy, protecting the effects of the revolution, and suppressing internal and external enemies. Build aspirations, aspirations, aspirations, good cultures and aspirations to good citizens. The Constitution has three basic functions:

Political functions: The constitution defines the political system, the socio-economic status of the state power, the domestic and foreign political policies, the rights and obligations of citizens, the principles of organization and functioning of the state apparatus.

Legal duties: The Constitution is the basic law, at the heart of Lao PDR's legal system, it is the legal strategy of Lao PDR.

Ideological functions: The Constitution has an impact on social ideology, educates the people to be patriotic, loves the people's democracy, promotes the ownership of the nation, and respects the rule of law.

The constitution of Laos has five main contents as the basic contents which include 1) Political regime, 2) Socio-economic regime, 3) National Defense – Security, 4) Rights and fundamental rights of citizens, and 5) Administrative unit of the Lao PDR. The current constitution document was issued in 2015 and approved by the National Assembly, signed by the president of assembly, Mrs. Pany YATHOTOU ([Government of Laos, 2020c](#)).

1.5.2 Summary of general law system

The National Law was approved under the NA, in total, there are 154 law documents that constituted to three domains of the National Law. The three domains of National Law are 1) the Social-cultural Law, which is consisted of 31 documents. 2) the Economics Law, which is consisted of 60 documents. And 3) the Law of Governance and Government Administration, which is consisted of 63 documents. Detail of the law document could be available at ([Government of Laos, 2020d](#))

1.6 Industry and Economy

1.6.1 Major industry

The Lao PDR's major industry is classified into 8 categories: (1) agriculture and food processing, (2) mining and energy, (3) garment and other labour-intensive industries, (4) electrical and electronic machinery, (5) transport equipment (automobiles and motorcycles), (6) tourism, (7) finance, and (8) transportation. These eight sectors, from agriculture and food processing to transportation, could be broadly categorized and positioned in relation to each other ([Economic Research Institute for ASEAN and East Asia, 2016](#)).

1.6.2 Economic status and employment scene

Lao PDR is becoming a middle-income status country. The country has strong economic growth, and has reduced poverty ([World Food Programme \(WFP, 2017\)](#)). Economic growth averaged 7% in year 2016 ([UNESCAP, 2017](#)), and Laos' growth has been amongst the fastest in Asia, averaging nearly 8% per year for most of the last decade, however, growth has declined over the past year ([World Bank Group, 2017](#)). GDP composition in the agriculture sector was 27%, manufacturing (11%), power and mining (18%), construction and services (44%) ([Ministry of Planning and Investment, 2016](#)). The economy has benefited from high-profile foreign direct investment in hydropower dams along the Mekong River, copper and gold mining, logging, and construction, although some projects in these industries have drawn criticism for their environmental impacts ([World Bank Group, 2015](#)).

Recently however, the country has faced a persistent current account deficit, falling foreign currency reserves, and growing public debt, as slow recovery of the global economy. Laos' economy is heavily dependent on capital intensive natural resource exports.

The Lao labour market is predominantly rural and agrarian, with farming and allied activities accounting for more than 66% of all employment and the manufacturing (7%), power and mining (1%), construction and services (26%) (World Bank, 2014).

The small and medium-sized enterprise (SME) sector dominates economic activity in Lao PDR and accounts for substantial employment. A total of 178,557 registered enterprises were operating in Lao PDR as of 2013, of which around 75%, or 134,577, participated in the country's 2013 Economic Census. According to the census, around 99.8% of the participating units, or 124 567, were classified as SMEs. The majority of these were micro enterprises, with those employing five workers or less accounting for 86% of all enterprises. This, alongside data from other surveys (GIZ, 2014), suggests that there may be a "missing middle" in the country's production structure, in common with many other emerging economies in Southeast Asia and beyond. A missing middle may indicate that SMEs face significant barriers to expansion, and this could be compounded by the fact that Laotian enterprises have access only to a small domestic market for goods and services. Surveys suggest that very few private Laotian enterprises export (GIZ, 2014). There are textiles and shoe factories (Nike has factories in Laos) and motorcycle parts in Laos. The country produced our own bricks, cement, soft drinks, beer, cigarettes, but the country imports most of its consumer foods from China and Thailand (ADB, 2011). The government has built the special economic zone in Savannakhet, and in Vientiane.

The 2017 labour force survey in 2017 showed that 1,757,733 were "employed" with the labor force participation rate of 40.8%. The unemployment rate was 9.4% in 2017 and it rose to 25% in May 2020, from 16% at the end of 2019 due to Covid-19 (Ministry of Planning and Investment, Lao Statistics Bureau, 2018; World Bank Group, 2020). Most employed people in Lao PDR were either unpaid family workers (43%) or own-account workers (38%). Paid employees constituted 19% of the country's workforce in 2015, of which more than half worked as government employees or in state cooperatives. Less than 1% of the total workforce were employers (Lao Statistics Bureau, 2016). Among women in the labour force, 61% worked as unpaid family workers, compared to only 26% of men. Nearly 15% of employed men worked in government jobs or in state cooperatives, compared with 7% of employed women.

The share of vulnerable employment in Lao PDR remained high at 84% of the workforce overall. Sectors with particularly high vulnerability levels included agriculture and fisheries (93%) and sales workers (73%). Vulnerable and informal employment was also widespread in other sectors, characterized by low pay, poor working conditions and no social protection (Lao Statistical Bureau, 2010). The 2017 labour force survey reveals that 35% of total employment took place in the informal sector while the formal sector accounted for 27% of total employment. When including informal employment outside the informal sector (in the formal sector and in households), the total informal employment rate was 83%. The rate was higher among women and in the rural areas (Ministry of Planning and Investment, Lao Statistics Bureau, 2018).

1.7 Labour Management relations, Contractors, Informal Sectors Workers and Migrants

1.7.1 Labour dispute and other labour-management relations

The Labour Law include the management of labour disputes ([President Office, 2006](#)).

Despite the relative stability of the industrial relations (IR) environment, industrial disputes have been on the rise in recent years. From 2006-2010, MoLSW documented 254 disputes (70 cases in 2009-2010), of which just over half (55%) were resolved through conciliation, 25% were withdrawn, and 19% referred to the courts. Of these, most cases were law-related, particularly concerning termination of employment contracts, overtime and benefit payments, and workplace injury. Individual disputes between employer and workers are hard to define but are generally uncommon. It is likely that official figures however, understate the true number of disputes. Challenges identified by the Ministry include the lack of clarity in the labour law, uncertain roles and responsibilities of social partners and different levels of government, as well as weak coordination with the courts. Officials also cite low legal awareness and binding capacity constraints among all parties as major obstacles to effective dispute resolution ([ILO, 2011](#)).

Informal Sectors Workers

A worker in informal employment refers to any worker who does not have access to at least one social security scheme or employment benefit. The social security schemes and employment benefits referred to the following: pension fund; basic health insurance; injury insurance; disability benefits; survivors' benefits; paid annual leave; paid sick leave; paid maternity leave; paid baby delivery; and unemployment insurance. Informal employment in Lao PDR is defined as comprising the following: those employed in informal sector enterprises which are not registered and do not keep accounts of their business; those who are employed in the formal sector but whose employers do not contribute to social protection, and who do not receive work-related benefits such as paid leave and annual leave; and contributing family workers. This is very close to ILO-suggested operational definition, except for the unit of measurement used, which is the worker rather than the job ([ASEAN Secretariat, 2019](#)).

The rate of informal employment is about 82.7% and is higher in rural areas compared to urban areas, though not by much (79.5% against 75%). Females have a higher rate of informal employment compared to males (85.9% vs. 79.9%) and informal employment rate drops by level of education (from 98.6% for those with no education to around 37% for those with high vocational education or university or higher education. By the economic sector, informal employment is typically lower in sectors with large government presence (education, human, health and social work, and public administration and governance), and generally higher in sectors such as construction, and wholesale and retail trade. Males generally contribute more to informal employment, mainly because they comprise a bigger share of the employed. There is no clear pattern as to whether rural or urban areas contribute more to informal employment. By age group, the plurality of informal employment workers are those in the 25-39 age group in Laos. The informal employment workers work about the same number of hours as formal employment workers ([ASEAN Secretariat, 2019](#)).

Migrants

There are a significant number of Lao migrant workers working with irregular status in Thailand. There are different reasons for working in Thailand, such as poverty, seasonal work after rice

harvesting to gain additional income, being lured, voluntary migration, being pushed by parents, being eager to enjoy new developments in Thailand and uninformed decision making (MOLSW, MOFA and MPS, 2016). It is estimated there were approximately 588,561 Lao workers employed in numerous countries worldwide in 2010, and should increase slightly by 2013. The majority of them were employed in Thailand (49%), the United States (33%) and France (8%). A sizeable Lao migrant workers were also employed in other advanced economies, including Canada (16,845—3%), Australia 11,352—2%), Japan (2,603), Germany (1,608), Belgium (1,481), New Zealand (981), Switzerland (917), United Kingdom (615), Spain (527), and Sweden (470). These figures of Lao migrant workers include those who migrated as refugees and resettled abroad as permanent residents. Registered Lao migrant workers represented only a smaller portion of the total stock of Lao migrant workers in Thailand. Also, WB's estimates of Lao migrant workers in other GMS countries are thought to be too conservative (Mana Southichack, 2014).

For employment overseas thus far, the Lao government has issued permission for Lao workers to work in Thailand, and workers to go for on-the-job training in Japan with legal conditions. In order to ensure legal status for Lao workers, the Lao government has issued decree No. 68/PM and other regulations to promote and manage the sending of Lao workers to work overseas.

Migrant labour made up around 8% of the working population, mostly in low-paid, labour-intensive work in neighbouring Thailand. Remittances sent back home by Lao migrants in 2013 accounted for between 1.9% and 2.5% of national GDP. In 2014, 11.5% of the adult population received international remittances, varying from nearly 20% in the South to 2.7% in the North (Mana Southichack, 2014; World Bank Group, 2015).

1.7.2 Trend of contractors, informal sector workers and migrants (international and domestic)

In the Labor Law, Article 23 outlines an employment contract is an agreement made between employee and employer or their representatives. Employees and employers must strictly comply with employment-related contractual obligations: employees must perform their duties according to their specialization and experience, employers must assign employees to work or positions that are stipulated in the employment contract, pay them salary or wages, and ensure their legitimate interests in accordance with the employment contract and the laws. Employment contracts must be made in writing between the employer and the employees in accordance with laws and regulations, based on the principles of equality and consensus. An employment contract may be made either for a fixed term or for an indefinite period depending on the agreement between the employer and the employee concerned (National Assembly, 2013).

1.8 Public Security, Disaster and Public Safety

1.8.1 Current status of security issues such as crimes and riots, occurrence of natural disasters and traffic accidents, etc.

Crime Threat

Vientiane Capital City is a relatively safe city and criminals do not target or single out foreign citizens based on nationality, but do frequently target foreigners for crimes of opportunity. In recent years, there has been an increase in overall crimes of opportunity and drug trafficking. The most common type of crimes include purse snatching, typically committed by thieves operating on motorcycles/mopeds; pickpocketing; theft of unattended property; and residential crime.

Criminals generally target homes with poor security – such as accessible windows, unlocked doors, and the absence of a guard.

Although violent crimes tend to remain relatively uncommon, there has been an increase in violent crime involving the use of weapons, including firearms. This trend may relate to the increase in illicit drug use. Laos has long been a transshipment point for the illegal drug trade and illegal trafficking in general, but the last few years have seen an increase in drug use (primarily methamphetamines) among the local population (OSAC, 2020).

Traffic Accidents (RTIs)

Lao PDR, is experiencing a rapid increase in RTIs associated with its economic growth ([World Health Organization, 2013](#); [Slesak et al., 2015](#)). Police reports stated that 1,086 deaths were caused by traffic accidents in 2016, with the number of injuries caused by traffic accidents reaching 8,912. The total number of accidents reached 5,616, and the cost of these accidents was a whopping 83 billion kip ([Vientiane Times, 2017a](#)).

Most often fatalities and RTIs affect motorcyclists (84 %), in particular young drivers (17–25 years of age) on Friday and Saturday nights ([Ferrand et al., 2006](#); [Inthalath et al., 2011](#)). The presence of alcohol and amphetamines are frequently associated with these crashes ([Inthalath et al., 2011](#)). Hospital surveys in the Vientiane Capital City show that head injuries are common (42 %) among motorcyclists; less than 30 % of them wore helmets and 42% had consumed alcohol ([Ferrand & Peyronnie 2006](#); [Inthalath et al., 2011](#)).

According to the latest WHO data published in 2013, Road traffic Accidents Deaths in Laos reached 1,058 of 2.48% of total deaths ([WHO, 2013](#)). Road traffic accidents continue to plague Vientiane Capital, with the latest figures for the year so far reaching a staggering 525 cases with 89 death cases, according to a recent announcement by police. Although the number of road accidents remains high, the capital city has at least seen fewer incidents than in previous years, with nine fewer accidents than in 2018, and 17 fewer deaths ([Vientiane Times, 2017b](#)).

Disasters (Drought, Floods, storms, Landslide..)

Laos is exposed to natural hazards such as floods, typhoons, cyclones, drought, and earthquakes. The country is vulnerable to recurrent, sudden-onset and slow onset natural disasters with flooding, storms and typhoons having a large effect on the population. The country remains highly vulnerable to agricultural shocks and natural disasters (Center for Excellence in Disaster Management & Humanitarian Assistance, 2017)

Drought

Lao PDR is vulnerable to prolonged droughts. The number of droughts over the last three decades has increased. Moderate drought frequently occurs while severe and extreme droughts are less common; except for severe drought in the dry season which has occurred many times. In 2003 for example, a severe drought occurred which could not be attributed to El Niño, and was thought to be climate related. Drought was relatively more frequent in the first and third 5-year periods of analysis from 1993-2012, with a lull in between. Probability of occurrence of drought of any category is found to be highest (27%) in Phalan district of the Savannakhet province in the dry season. It is also found to be high (25-27%) in Phiengluang district. The total number of droughts

from 1993-2012 was 1,205 events and there were 3,496,846 affected persons and 115 deaths (National Disaster management Office, 2012; Center for Excellence in Disaster Management and humanitarian, 2017).

Floods

The tropical monsoon climate in Lao PDR has two distinct seasons, wet and dry. Flood events are common in Lao. Flooding occurs from August to September, predominately in the central and southern provinces of the country, following the southwest monsoon season. The number of floods over the last three decades has increased with increased flooding experienced in the central and southern parts of the country and flash floods in the northern mountainous areas and eastern region in 1995, 1996, 2000, 2002 and 2005 (Center for Excellence in Disaster Management and humanitarian, 2017). The country has also experienced a number of tropical storms including “Xangsane” (2006), “Lekima” (2007), Ketsana (2009) and Haima/ Nokten (2011). Based on the data available on DesInventar database floods affected a very high number of people (nearly 3.5 million people have been reported to be affected by floods). The provinces mostly affected by flood are located in central and southern part of Lao PDR such as Vientiane Capital, Vientiane province, Borikhamxay, Khammuane, Savanakhet, Saravane, Champasack, Sekong and Attapeu provinces. The number of floods from 1993-2012 was 1,205 events and 3,496,846 persons were affected and 15 were died (DesInventar 2012 (1993 – 2012)).

Flash Floods

The number of flash floods has also increased with the northern mountainous areas and eastern region experiencing flash floods in 1995, 1996, 2000, 2002 and 2005. In particular, flash floods are relatively common in the provinces located in the northern part of Lao PDR: Phongsaly, Oudomxay, Luangnamtha, Bokeo, Xayabury, Luang Prabang, Houaphan and Xiengkhouang (National Disaster management Office, 2012).

According to DesInventar from 1993-2012, flash floods were reported in Bokeo, Houaphan, Luang Prabang, Phongsaly, Vientiane, Xayabury and Xiengkhouang. While flash floods are not a frequent event, they still affect a large number of people, although the impact of flash floods on crops is less severe. When analyzing the impact of floods on the different districts, Thathom district in Xiengkhouang and Vangvieng in Vientiane are identified as the districts with the highest number of events (4 each) (National Disaster management Office, 2012; Center for Excellence in Disaster Management and humanitarian, 2017).

Storms

For 50 years return period, a class 3 (178 – 209 km/hr) storm is expected to hit parts of Khammuane province. Storms can also cause floods including flash flooding and landslides especially in northern Lao PDR. At the end of rainy season in 2009 typhoon Ketsana hit the southern part of Lao PDR causing server damages in three provinces in the south, namely Saravane, Sekong and Attapeu. According to the DesInventar from 1993-2012, all provinces experienced storms, however, not all the provinces experienced a high number of storms within the last 20 years. Storms are associated with a high number of destroyed roads. The total number of storms from 1993-2012 was 693 events and there were 550,415 affected persons and 38 deaths (DesInventar 2012 (1993–2012) (National Disaster management Office, 2012; Center for Excellence in Disaster Management and humanitarian, 2017)).

Landslides

Landslides or slope stability is mainly related to weather conditions. Rainfall is the main cause for landslide occurrences with most landslides occurring during the monsoon season. A large part of the country is located in low to medium landslide susceptibility zones. Only 5.24 % of the country however is prone to very high landslide susceptibility. These high susceptibility zones are localized in the southeast and central part of Lao PDR ([National Disaster management Office, 2012](#)). Landslides result economic losses, delays to traffic, restricted movement of transport, and further require debris removal, repairs to retaining walls, roadside drains, and the resurfacing of roads ([National Disaster management Office, 2012](#); [Center for Excellence in Disaster Management and humanitarian, 2017](#)).

1.9 Relationship with Japan

1.9.1 Relations with Japan in politics and economy

The relationship between Lao PDR and Japan was established since 1955. The number of Japanese nationals residing in Laos was 863 (as of October 2017). The Lao PDR is also acknowledged as the first country to have receive Japan Overseas Cooperation Volunteers (JOVC) in 1965. The Vientiane Office was established in 1967 oversaw major development projects, including the construction of Nam Ngum Hydropower Station from late 1960s to early 1970s. Even after closure of the office in 1978, Japan continued to provide support to the Lao PDR through Grant Aid projects.

In 1990, the Vientiane office was reopened as a JOVC office and the dispatch of volunteers started. In 1996, the JOVC office was renamed as JICA office, with JICA in charge in providing Aid to Laos across various sectors. JICA is continued to support socio-economic development of the Lao country and strengthen the friendship between Laos and Japan ([JICA, 2014](#)).

Japan has committed to supporting Lao PDR meet its Five Years of the National Socio-Economic Development Plan VIII (2016-2020) (hereinafter referred to as the “8th NSEDP”) illustrated “New Tokyo Strategy 2015” for Mekong-Japan Cooperation adopted at the Seventh Mekong-Japan Summit Meeting in July 2015 ([MOFA of Japan, 2016](#)).

Based on the Within the 8th NSEDP there are “3 Outcomes (Outcome 1: The Economy: A strong economic foundation and reduced economic vulnerability; Outcome 2: Society: Human resources development, poverty eradication, access to high-quality education and healthcare, and the preservation and development of Lao PDR’s unique culture; and Outcome 3: The Environment: Green and sustainable natural resources and environmental protection and management, and preparedness for natural disasters and climate change)”. Lao PDR will be: I. Achieving greater connectivity with neighboring countries; II. Lifting competitiveness through industry diversification, the development of small- and medium-sized enterprises (SMEs) and training the industrial workforce; and III. Rectifying disparity through balanced regional and urban development that takes environmental and cultural preservation into account

In this Joint Plan, Japan and Lao PDR will seek to bring about Lao PDR’s graduation from LDC status by 2020 and make progress toward achieving the SDGs as a result of realizing the following points:

- Land and air routes will be developed as a transportation network that meets ASEAN and international standards and is resistant to natural disasters. This will ensure safe and smooth flows of goods and people and form the basis for a distribution hub for the Mekong region.
- Promoting the development of power generation that utilize Lao PDR's abundant water resources and developing the electricity networks will lead to infrastructure sustainable development and enhanced industrial competitiveness. Therefore, electricity exports to the Mekong region will be promoted, thus contributing to the economic development of Lao PDR and neighboring countries as well as stronger domestic finances.
- An environment conducive to the development of the industrial human resources will be prepared so that increased competitiveness and the establishment of diverse companies that contribute to green growth will be encouraged. The investment and business environment will be streamlined with the goal of vitalizing private-sector companies' activities.
- Irrigation agriculture will be made possible so that agricultural commodities that are safe and have a regional flavor can be produced, and they will be supplied freshly and safely to domestic and overseas markets through a cold chain, which will ultimately serve to establish agriculture as an industry that employs a large number of citizens and lift farmers' incomes.
- Public social infrastructure such as health, medical care, education, waterworks and sewerage systems, electricity and public transport will be put in place in a balanced manner in cities and regions, and green growth will be promoted throughout the country. This will enable each region's unique cultural and lifestyle base to be preserved.

1.9.2 Local status of Japanese companies

There 160 Japanese companies are operating in Laos (The Vientiane Times, 2020). The Japan External Trade Organization (JETRO) Vientiane has worked with the developers of four special economic zones (SEZs) to encourage more Japanese investment. Since the establishment of JETRO Vientiane, investments by Japanese companies in Laos had and Japanese companies continue to seek information on Laos' investment laws and information related to establishing a company, tax payments, marketing studies, and business partners.

1.9.3 Status of Official Development Assistance (ODA) by Japanese government

The Japan International Cooperation Agency (JICA) implements Japanese the Official Development Assistance (ODA) providing three forms of assistance: 1) technical cooperation, 2) grant aid, and 3) concessionary loans (Japanese ODA Loans).

JICA assisted Laos in the following areas:

(1) Development of Economic and Social Infrastructure

JICA supports numerous transport and economic infrastructure projects important in strengthening ASEAN connectivity. It also supports logistics projects to facilitate investment a from the private sector, including Japanese companies. JICA has also provided assistance in the fields of environmental management, water treatment, and urban planning that contribute significantly to creating environments that meet the needs of local communities

(2) Agriculture

JICA assistance aims to increase productivity in agriculture, through projects that promote irrigated agriculture and the cultivation of commercial crops. These activities have the potential to

increase farmers' incomes, many of whom remain poor, and narrow the development gap between urban and rural areas.

(3) Improvement of Educational Environment and Human Resource Development.

JICA provides assistance to help develop the country's human resources through the educational environment, raising the quality of teachers school management.

(4) Improvement of Healthcare Services.

JICA provides assistance strengthen the Lao healthcare system to contributes to health-related SDGs. health sector project focus on developing human resources, improving health facilities and access to services particularly those targeting Maternal, Neonatal and Child Health.

(5) Others

JICA assisted Lao PDR to improve governance such as administrative capacity, institutional building and the judicial system, to help promote development and improve the effectiveness of assistance, green environment, sustainable development, and the need for measures against climate change and Unexploded ordnance (UXO).

By sector, Japan's assistance for Lao PDR since 2004 has prioritized the social infrastructure and services sector. Assistance in the economic infrastructure and services sector, which was the second largest area of assistance, accounted for 10% to 19% of the total, except in 2005 and 2011 when ODA Loan is provided, and less than half the 20% to 60% of the social infrastructure and services sector. By subsectors, Japan's assistance has prioritized transportation and storage, education, health, government and civil society (see Table 2) (ALMEC Corporation, 2014).

Table 2. Trends of Japan's Assistance for Lao PRD by Sector

Year	2004	2005	2006	2007	2008	2009	2010	2011
Social Infrastructure and Services	62.5	20.9	55.8	53.9	43.7	32.2	32.3	19.6
Education	28.4	8.8	4.6	11.3	12.1	20.5	21.6	8.8
Health	13.8	6.0	10.0	13.9	15.1	4.6	2.9	1.8
Population policy/program and Reproductive health	0.2	0.0	0.0	1.2	1.9	1.2	0.7	0.8
Water supply and sanitation	2.4	1.5	27.8	0.6	0.8	1.5	1.8	1.1
Government and civil society								
Others								
Economic Infrastructure and Services	6.0	60.1	28.0	18.9	11.4	9.8	15.2	69.8
Transport and storage	1.4	22.3	24.3	14.4	5.0	1.5	2.0	65.0
Communications Business and Other Services	1.3	1.3	0.7	0.7	0.7	0.7	1.4	1.7
Energy	2.8	36.0	2.4	1.9	1.7	2.7	7.9	1.5
Banking and Financial Service	0.1	0.1	0.4	0.5	0.7	1.3	2.4	1.0
Business and Other Services	0.4	0.3	0.2	1.4	3.3	3.6	1.6	0.5
Production Sectors	7.2	5.2	5.0	9.9	19.0	11.1	11.1	7.2
Agriculture, Forestry, Fishing	6.0	4.2	3.8	6.9	11.8	6.4	5.1	4.6
Industry, mining, construction								

Source: OECD, OECD Stats: Creditor Reporting System (<http://stats.oecd.org/>)

The Japan-Lao PDR Joint Development Cooperation Plan for the Sustainable Development of Lao PDR" that was agreed upon in September 2016, JICA has set three pillars of cooperation; 1) strengthening connectivity with countries in the region on the tangible and intangible fronts; 2) Develop the industrial human resources in order to diversify Lao PDR's industries and enhance their competitiveness; 3) Rectify disparity through balanced urban and regional development that takes environmental and cultural preservation into account. In order to steadily implement these three pillars, JICA is also tackling cross-sectoral issues such as macroeconomic and fiscal stabilization, promotion of the rule of law, enhancement of administrative capabilities, and removal of unexploded ordnance (MOFA Japan, 2016).

Lao PDR received ODA in the forms of Grant Aid and Loan Aid from JICA and technical assistance. For example, the cumulative Loans in 2016 were 48.43 billion, the cumulative grants were 152.97 billion yen and Technical Cooperation in 2016 was 73.08 billion yen. Table 3 presents the Grant and Loan Aid from JICA – 2015-2020.

Table 3: Trends of Grant Aid and Loan Aid from JICA from 2015-2020

Project's name	Date End	100 million Yen
Fiscal Year 2015		
The Project for Reconstruction of the Bridges on the National Road No.9 (Detailed Design)	November 24, 2015	0.70
The Project for Acceleration of UXO Clearance for Rural Development and Poverty Eradication (Phase 2)	July 4, 2015	8.45
The Economic and Social Development Programme	July 4, 2015	5
The Project for Strengthening Research and Development on Fisheries and Aquaculture	May 26, 2015	7.14
Loan Aid		
Vientiane Capital Water Supply Expansion Project	March 17, 2016	102.71
Fiscal Year 2016		
The Economic and Social Development Programme	October 4, 2016	5
The Project for Reconstruction of the Bridges on the National Road No.9	May 4, 2016	25.28
The Project for Human Resource Development Scholarship		2.47
Fiscal Year 2017		
Grant Aid		
The Project for the Improvement of Setthathirath Hospital and Champasak Provincial Hospital	February 9, 2018	19.40
The Project for the Improvement of Irrigated Agriculture in Tha Ngon	December 26, 2017	8.37
The Project for Improving Secondary School Environment in the Central and Southern Provinces	October 23, 2017	13.69
Food Assistance (through WFP)	September 18, 2017	3.50

	The Project for Human Resource Development Scholarship	June 22, 2017	3.21
	The Project for Improving Secondary School Environment in the Central and Southern Provinces (Detailed Design)	May 26, 2017	0.46
	Fiscal Year 2018		
	Grant Aid		
	Project for the Expansion of Water Supply System in Luang Prabang City (Detailed Design)	March 20, 2019	0.97
	The Economic and Social Development Programme (Fisheries and Aquaculture Sector)		2
	The Economic and Social Development Programme (Public Security Sector)		2
	The Economic and Social Development Programme		5
	The Project for the Improvement of Water, Sanitation and Hygiene (WASH) in Schools and their Surrounding Communities in Floods Affected Areas (through UNICEF)	March 6, 2019	2.50
	The Project for the Rehabilitation and Reconstruction of School Education Sector in Floods Affected Areas (through UNICEF)		2.50
	The Project for the Rehabilitation and Reconstruction of Agricultural Sector in Floods Affected Areas (through FAO)		1
	The Project for the Rehabilitation and Reconstruction of Housing Sector in Floods Affected Areas (in collaboration with UN and implemented through UN-Habitat)		2.50
	The Project for the Acceleration of the Clearance of Unexploded Ordnance in the Southern Region	October 8, 2018	9
	The Project for Human Resource Development Scholarship	June 12, 2018	3.10
	Fiscal Year 2019		
	Grant Aid		
	The Economic and Social Development Programme	December 23, 2019	10
	Project for the Expansion of Water Supply System in Luang Prabang City	October 5, 2019	19.22
	The Project for Human Resource Development Scholarship	May 30, 2019	3.08
	Fiscal Year 2020		
	Grant Aid		
	he Project for Improving Teacher Training Colleges	August 23, 2020	19.12
	The Economic and Social Development Programme		5

	The Project for Human Resource Development Scholarship	July 16, 2020	3.17
	The Economic and Social Development Programme	June 5, 2020	15

Source: MOFA of Japan. Official Development Assistance. Website: https://www.mofa.go.jp/policy/oda/page_000040.html.

Chapter 2: Healthcare and Public health

2.1 Status of Public Health, Disease, and Cause of Death

2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.

Health outcomes such as the life expectancy in Lao People’s Democratic Republic (Lao PDR) have improved significantly (see Table 4). Compared to women, men have a lower life expectancy of 66.43 years than the average (68.22 years,) and lower than women’s life expectancy at 70.6 years in 2020 (<https://populationstat.com/laos/>, 2020). Improvements have also been observed in the total fertility rate which reduced from 6.3 to 2.7 between 2011 to 2017. The child mortality has reduced significantly, declining from 51 per 1000 live births in 2016 to 34 per 1000 live births in 2019 (MOH, 2020). Similarly, the under 5 years old mortality rate per 1000 live births also was declined. The maternal mortality ratio (MMR) decreased from 206 (in 2016) to 167 per 100 000 live births in 2019 (Lao Statistics Bureau, 2017; MOH, 2020), however, it remains high compared to the rest of the region. The nutritional status of children under 5 years remains challenging and a priority for the government. For instance, 32.5% of children under the age of five have low height for their age (stunting) and 20.5% have low weight for their age (underweight) in 2019.

In terms of the Sustainable Development Goals (SDGs) progress for Lao PDR is shown in Table 1, demonstrating some of SDG 3 targets are on track to be achieved by 2020 and 2030 (WHO, 2014).

Table 4: Health status of the Lao people

No	Health Indicators	2011	2016	2017*	2018	2019	2020 Target	SDG 2030
1	Life expectancy	64.8	66.9	67.3	67.6	67.9	68.9	
2	TFR	6.3		2.7				
3	Prevalence of wasting among children under 5 years old		25.5%	21.1%	21%	20.5%	20%	10%
4	Prevalence of stunting among children under 5 years		35.6%	33%	33.2%	32.5%	32%	23%
5	Infant mortality per 1000 live births		51	40	38	34	30	<12
6	Children under 5 years old mortality per 1000 live births		67	46	51	42	40	<25
7	Maternal mortality per 100,000 live birth		206	185	175	167	160	<70
8	Prevalence of use clean water		90.80%	83.9%	83.9%	85%	90%	>95%
9	Prevalence of use latrines		70.2%	73.80%	73.8%	75%	80%	>90%
10	Percent of the National Health Insurance Coverage		32%	71%	75%	94%	80%	

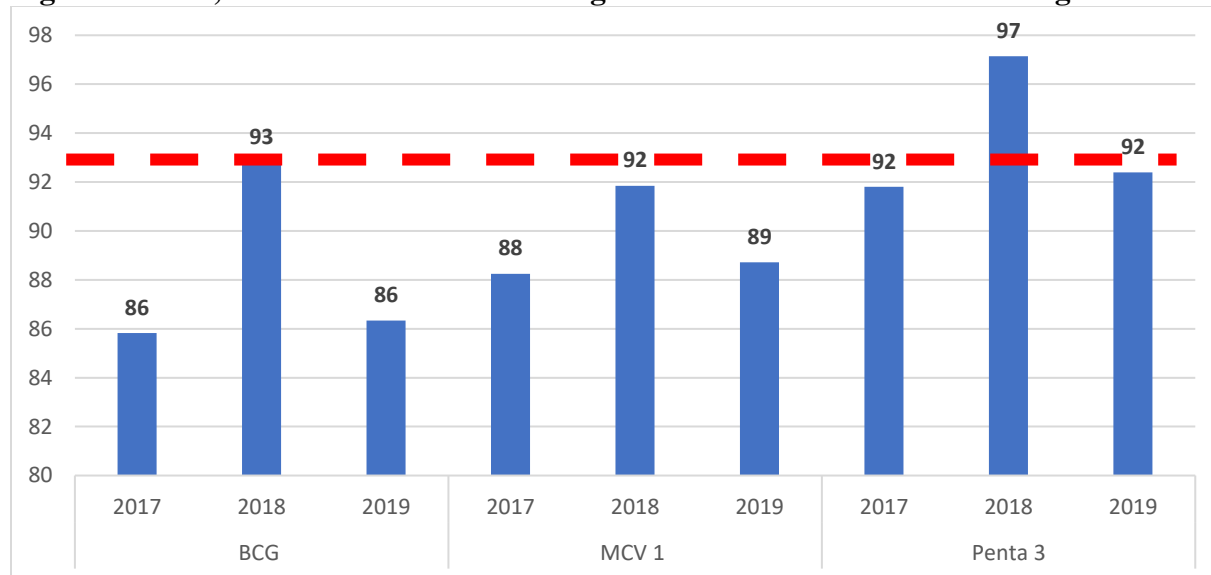
Source: MOH & Lao Statistics Bureau. (2017). Lao Social Indicator Survey.
 Department of Planning and Cooperation, Ministry of Health 2019. Health Management Information System.

Immunization coverage

Vaccination saves lives and keeps children healthy and is a successful and cost-effective public health interventions to. As such, immunisation is a central pillar of the Lao PDR’s universal health coverage. Increasing vaccination coverage and reducing vaccine preventable diseases also achievement of the SDGs and can help to solve antimicrobial resistance problems (WHO, SAGE, 2018). In 2019, birth dose vaccines such as BCG were mainly provided at fixed sites (59%) (Department of Planning and Cooperation, Ministry of Health, 2019). For non-birth vaccine doses, vaccines were mainly administered at outreach and mobile visits, representing over 50% of total vaccines provided (Figure 5).

The coverage of children’s health services, such as the Expanded Programme on Immunization (EPI), has improved as seen in the Ministry of Health (MOH) administrative data (i.e. from the DHS) and from population survey data from 59.7% in 2017 to 57.5% in 2018 and 60.8% in 2019 (see Figure 5).

Figure 5: BCG, MCV1 and Penta 3 coverage from 2017 to 2019 and 2019 target



Source: Department of Planning and Cooperation, Ministry of Health 2019. Health Management Information System.

2.1.1 Status of communicable disease, major diseases, leading cause of death, infant mortality and other public health information.

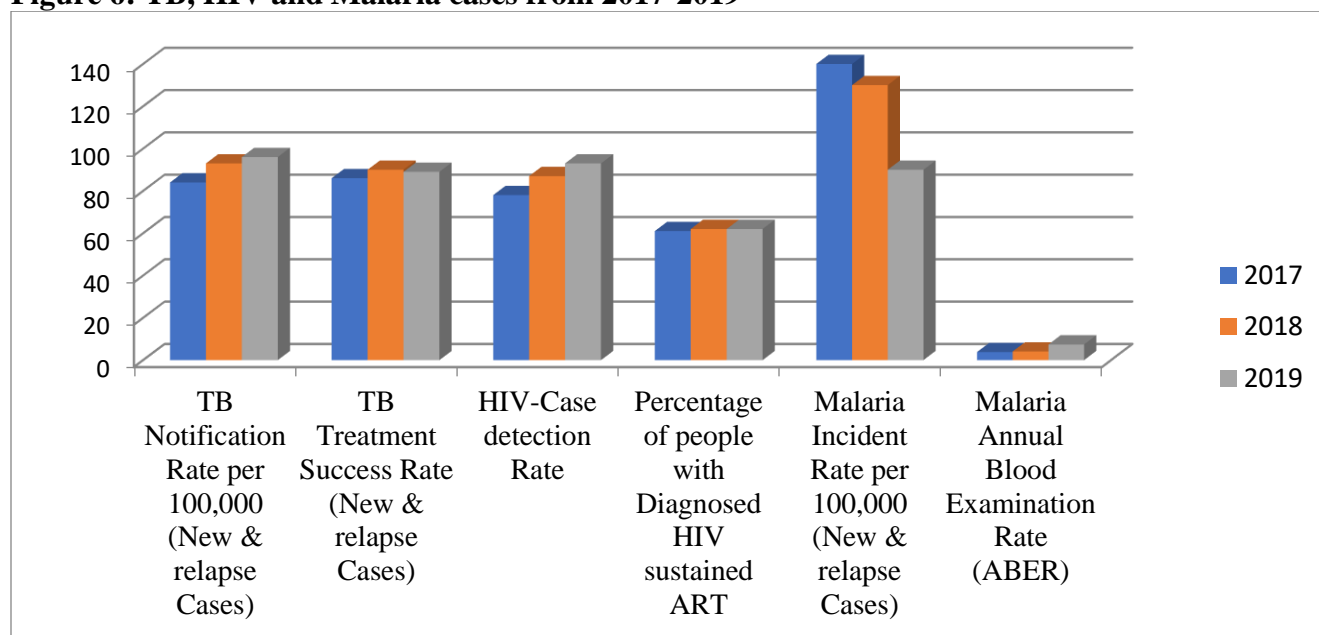
TB, HIV/AIDS, Malaria

Figure 6 presents the state of HIV, TB and malaria in Lao PDR. Overall, the TB notification rate increased over the period 2017 - 2019 from 84 to 96 cases per 100,000 inhabitants. The notification rate varies significantly however, across provinces, ranging from 11 in Xiengkhouang to 155 in Vientiane Capital (Department of Planning and Cooperation, Ministry of Health, 2019).

The HIV case detection rate increased from 78 in 2017 to 87 in 2018 and 93 in 2019. The percentage of people with diagnosed HIV and sustained ART increased from 61 in 2017 to 62 in 2018 and 78 in 2019.

Overall, the incidence of malaria has decreased from 1.35 in 2017 to 0.93 per 1,000 population in 2019. The decline in malaria incidence is associated with increased testing; the Annual Blood Examination rate for example rose from 3.8% in 2017 to 7.4% in 2019. The incidence of malaria Laos is driven mainly by the southern provinces with Attapu and Xekong having the highest incidence of malaria in with 10.69 and 8.88 cases per 1,000 population respectively. The incidence of malaria however has been declining steadily with the exception of Xekong which recorded a 12% increase in 2019 compared to 2018 (Department of Planning and Cooperation, Ministry of Health, 2019).

Figure 6: TB, HIV and Malaria cases from 2017-2019



Dengue

Lao PDR had a dengue outbreak in 2019 which prompted a large increase in the number of cases in 2019. A total of 59332 Dengue cases were registered in 2019 as opposed to 6893 cases in 2018 (the figures includes mild and severe cases) (table 5). The largest outbreak was in Vientiane Capital, which registered close to half of the total number of cases (22354), followed by Savannakhet (over 10000 cases) and Khammuane (over 5000 cases). Eighteen provinces recorded an increase in the number of dengue cases in 2019 (Department of Planning and Cooperation, Ministry of Health, 2019).

Table 5: Notifiable Dengue

Dengue	2017	2018	2019
No of Dengue cases	11469	6893	59332

No of Deaths due to Dengue	27	10	54
Case fatality Rate			0.09

Maternal and Child Health

MCH indicators have been steadily improving over the period 2017-2019. The coverage of postnatal care increased by 3 percentage points between 2018 and 2019. The coverage of ANC1 has been between 97% and 101% between 2018 and 2019 (Figure 7). The coverage of over 100% may be due to an underestimated number of live births or poor data quality associated with counting subsequent ANC visits as ANC1. The coverage of ANC1 and ANC4 have reached the target set in the five-year MCH Strategic Plan. Coverage of deliveries by SBA and PNC within 2 days however, are one percentage point below the set targets.

The percentage of births in health facilities with a complete birth notification form, increased by 8 percentage points between 2018 and 2019 (Figure 8). This increase was observed across most provinces, however Xaysoboun has a significantly lower percentage of births notified (37%). Deliveries assisted by SBA ranges from 44% in Attapeu and Phongsalai to 83% in Xiengkhouang (Department of Planning and Cooperation, Ministry of Health, 2019).

Figure 7: ANC, Delivery from 2017-2019

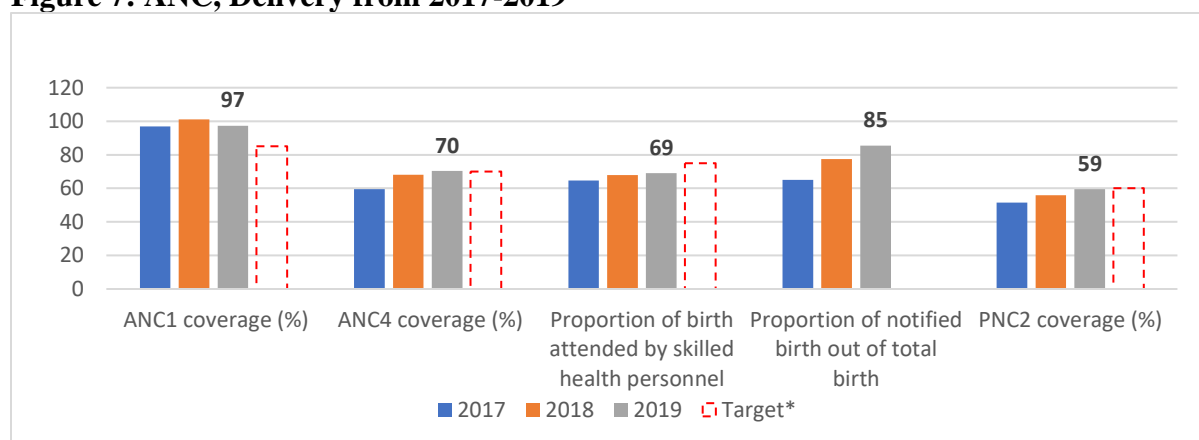
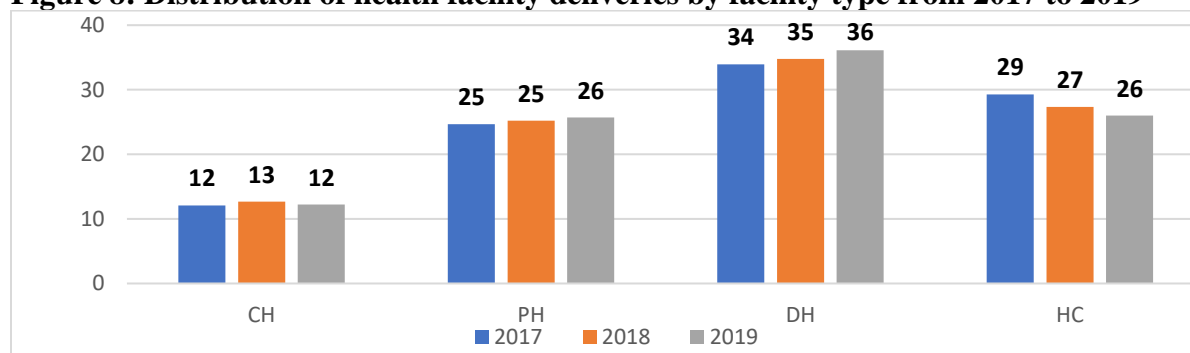


Figure 8: Distribution of health facility deliveries by facility type from 2017 to 2019

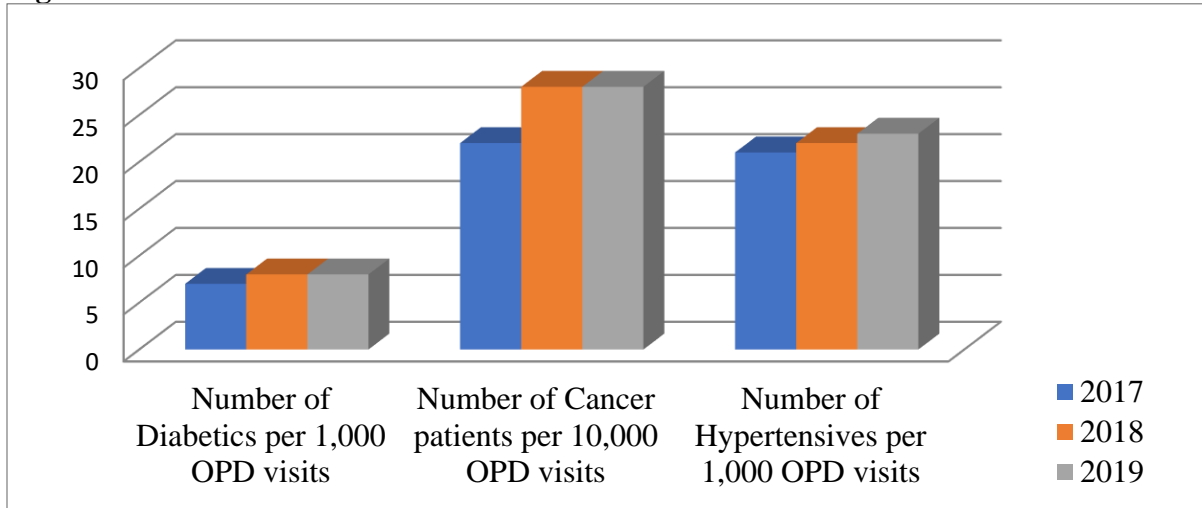


Source: Department of Planning and International Cooperation, Ministry of Health. 2019. Health Management Information System.

Non-communicable diseases

Figure 9 below presents the proportion of OPD visits per 1000 OPD visits over time for three non – communicable diseases: diabetes cancer and hypertension (Department of Planning and Cooperation, Ministry of Health, 2019).

Figure 9: Non-Communicable Diseases



Causes of morbidity and mortality in Laos

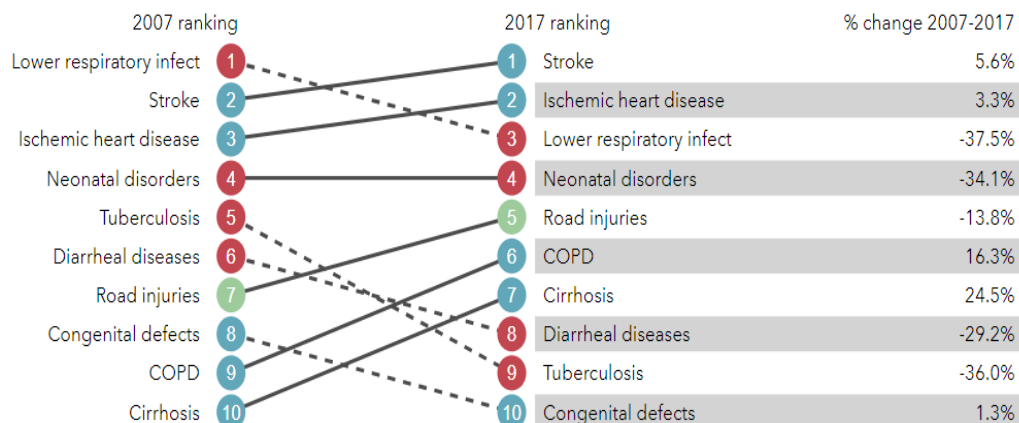
Representative population-based data on causes of mortality are not available in Lao PDR due to the limitations of the civil registration system, both in terms of the number of deaths and the accurate diagnosis of the cause of death. The only available mortality data are from hospital records.

Mortality pattern

The top 10 causes of death in 2017 and percent change, 2007-2017, all ages, number, suggested by the Health Metric modeling were stroke, Ischemic Heart diseases, LRI, neonatal disorders, road injuries, COPD, Cirrhosis, diarrheal diseases, TB, Congenital defects.

Figure: 10 Cause of deaths in Lao PDR

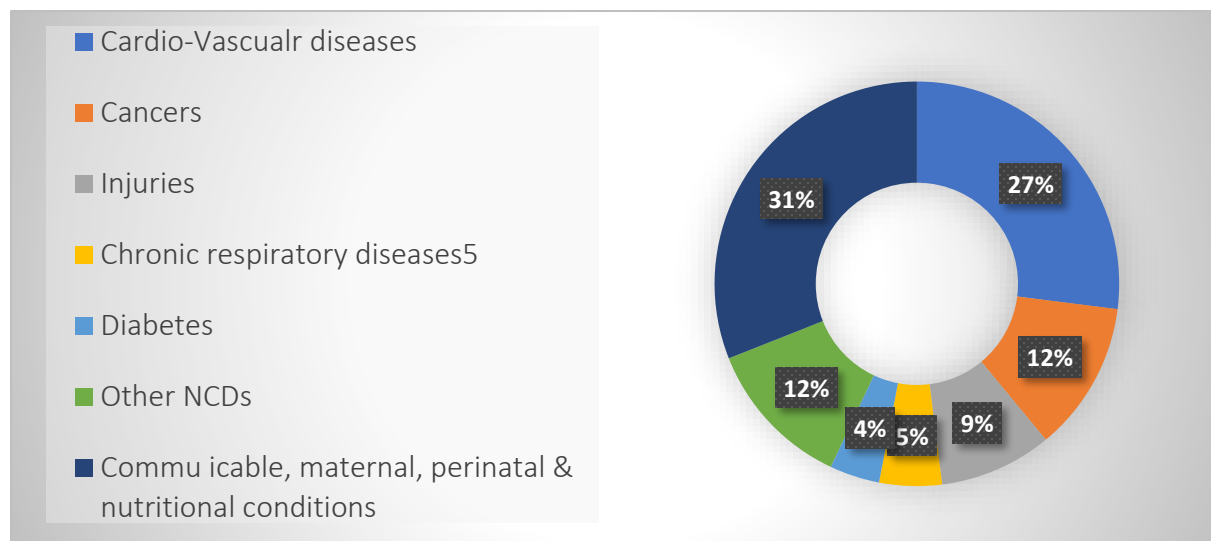
What causes the most deaths?



Source: Institute for Health Metrics and Evaluation

Increased incidence of NCDs and traffic injuries are policy concerns; about 60% of mortality in people of all ages was attributable to NCDs. The NCDs attributable to the causes of death among adults in 2017 were: (1) cardio-vascular diseases, 27%; (2) cancers, 12%; (3) injuries, 9%; (4) chronic respiratory diseases, 5%; (5) diabetes, 4%; and (6) other NCDs, 12% (Figure 11). Communicable diseases, maternal, perinatal and nutritional conditions contributed to 31% of mortality cases in 2017 (WHO, 2018). The population exposure to health risks such as tobacco and alcohol consumption, poor nutrition, physical inactivity and environmental hazards varies based on modelling from 2% (low physical activity), 3% (alcohol), to 29% (High systolic blood pressure).

Figure 11: NCD Burden in Lao PDR



Source: WHO Noncommunicable country profile 2018

2.2 Training and Supply for Physicians and Healthcare Professionals

2.2.1 Educational system for healthcare professionals

Education for health professionals is managed by the MOH and fully funded through taxes. The body responsible for setting educational standards is the Educational Development Centre, which established in 2011 as part of the University of Health Sciences. Its main role is to improve the quality of health professional development through improvements to training curricula, teaching skills, educational resources, materials, and educational facilities.

Medical training

There are five levels of medical training in Lao PDR. The first level is medical assistant or a mid-level PHC worker, the upper-secondary-school students require 3 years of training, while low-level PHC workers can upgrade to these positions with a 1-year program. The 2nd level is medical associate which is a high-level diploma course requiring 4 years of training for upper-secondary-school students or 1 year for those who wish to upgrade their medical assistant qualifications. The bachelor's medical doctor degree (MD), is a 6-year training program with a 'foundation' first year followed by 2 years of pre-clinical sciences, 2 years of clinical studies, and a final year of clinical practice. After completing a bachelor's medical doctor degree (MD), graduates can enroll in specialist training level 1 and level 2 as subspecialists. Specialist training is available at the University of Health Sciences under the Faculty of Medicine. Many specialties are offered, including obstetrics, gynecology, pediatrics, internal medicine, anesthesia, surgery, radiology, and family medicine, among others. Most specialties require 3 years of training and candidates are called 'first-level specialists' during the first 2 years, after which they can apply for the second level if there is a relevant course (WHO, 2014).

Nurse and Midwife training

Training of nurses includes four levels such as 1) a technical nurse (mid-level) requires 2.5 years of studies after upper secondary school; 2) a registered nurse (high-level diploma) requires 3 years of studies; 3) a graduate nurse requires 4 years of studies (bachelor level), and 4) a specialized nurse requires first achieving the bachelor level and then completing an additional 2 years of training. For midwife training, there are two levels: community midwife; and midwifery bachelor's degree. The community midwife training course is offered at seven schools, while the high-level diploma and bachelor-level midwife programs are run by the Faculty of Nursing at the University of Health Sciences. The midwifery bachelor's degree 4-year program (so far only one batch has graduated), but there are also training programs (1.5 years) that technical nurses or community midwives can complete to achieve a high-level midwifery diploma (WHO, 2014).

A main focus of the country's HRH strategy is to upgrade the qualifications of existing auxiliary nurses (there are currently more than 3000) to mid-level nursing qualifications such as a technical nurse or community midwife, requiring a 1-year course. Mid-level nursing training is offered by four provincial public health schools while the high-level diploma program is offered by three colleges of health sciences (WHO, 2014).

Dentist training

It takes 6 years of studies for an upper-secondary-school student to qualify as a dentist. After the first 'foundation' year, the students pursue preclinical studies at the Faculty of Basic Sciences during years 2, and the last 2 years are spent in clinical training. To become a dental assistant, 3

years of training are required, including the first year of foundation studies for upper-secondary-school students (WHO, 2014).

Pharmacist training

A bachelor's degree in pharmacology takes 5 years to complete. The first year of foundation studies is followed by 2 years of general pharmaceutical sciences. The fourth-year provides students with a choice of two professional tracks: pharmaceutical care or pharmaceutical sciences. The last year offers clerkship opportunities for students in both tracks. Training to be a pharmacist assistant requires 3 years of studies, including the first 'foundation' year for upper-secondary-school students (WHO, 2014).

Medical Technician training

The Faculty of Medical Technology has a curriculum for a 4 year undergraduate diploma in rehabilitation, and a 3 year higher diploma in rehabilitation; a curriculum of orthopedic technician is 3 years; a curriculum of higher diploma of X-ray technicians is also 3 years while an undergraduate diploma for X-ray technicians takes 4 years. There is also a 2 year undergraduate diploma of laboratory training for 2 years and an undergraduate diploma for laboratory of 4 years and 3 year higher diploma for laboratory as well as a 2 year master program for hematology for 2 years (Faculty of Medical Technology, 2019).

Public health training

The Faculty of Public Health offers a Master of Public Health, major Health management (introduced in 2005) and a Master of Public Health, major Epidemiology and Nutrition (introduced in 2017). The Faculty plans to develop a curriculum for a Master of Public Health, with a in major Environmental and Occupational Health and a Bachelor of Public Health Sciences in 2021 (Faculty of Public Health, 2020).

2.2.2 List of universities for healthcare professionals

Ten institutions provide health care professional training. The University of Health Sciences, the Institute of Public Health and Tropical Medicine (LaoTPHI) are the major training institutions in Vientiane. At the provincial level, there are three Colleges of Health Sciences (Luang Prabang, Savannakhet, and Champassack) and four public health schools (Oudomxay, Xiengkhuang, Vientiane, and Khammuane).

The University of Health Sciences (UHS) offers bachelor's level and postgraduate training, including master's programs and specializations, while the colleges of health sciences offer mid-to high-level diploma courses required to qualify as a technical nurse, community midwife, medical assistant or medical associate PHC worker. The UHS consists of 2 cabinets of Administrative and Academic affairs and 6 faculties: Faculty of Medicine, Nursing, Dentistry, Pharmacy, Medical Technology, Public Health. The LaoTPHI provides the Tropical Medicine Master training for International Public Health and Tropical Medicine for Lao and Vietnamese students.

2.2.3 Supply and availability for physicians, nurses and other healthcare professionals (including the Status of study abroad for physicians)

Health Work Force

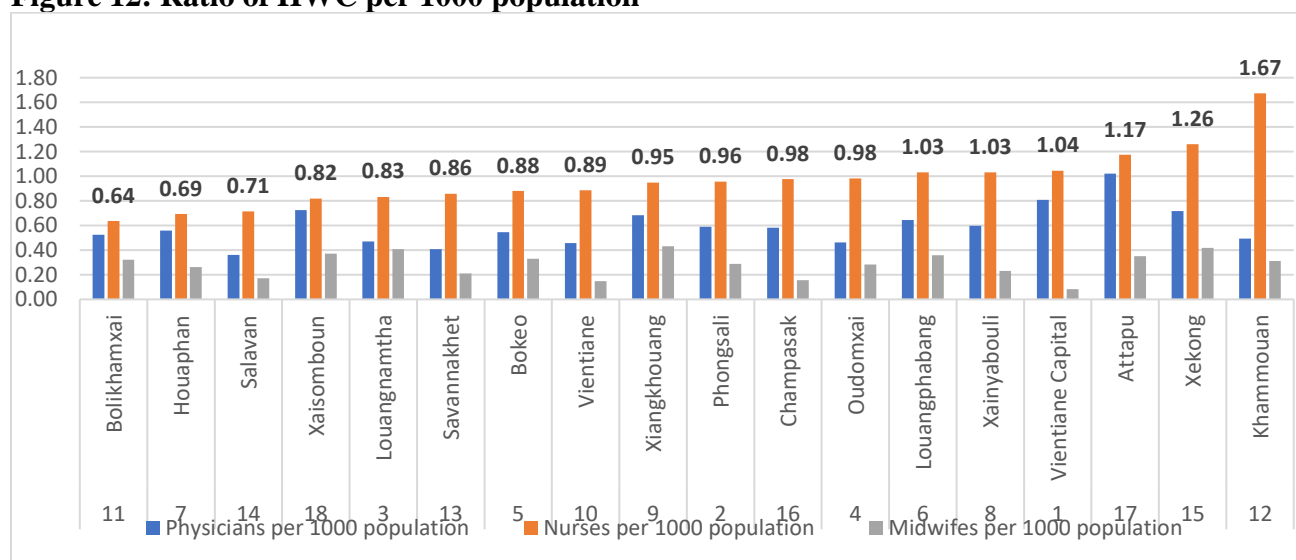
The Lao PDR has only 0.24 doctors, 0.82 nurses, and 0.09 midwives per 1000 population (Table 6), including some with only low-level qualifications. The reporting system managed by the Department of Health Personnel, however, only includes civil servants on the Ministry of Home Affairs payroll while contractual and volunteer health workers represent approximately 25% of the total health workforce and are therefore not included in the official figures.

In 2019, there was an average of 0.97 nurses per 1,000 population. Nurses represent the largest share of health workers in Lao PDR; however, there are significant disparities across provinces. Khammouan has the highest rate of nurses per 1,000 population (1.7) and Bolikhamxay. There is an average of 0.62 medical doctors per 1,000 population with Vientiane Capital having the highest number of medical doctors per 1,000 population (0.81) and Salavan the lowest (0.7). In total, 8% of the total medical doctors are based in Vientiane Capital. There is an average of 0.24 midwives per 1,000 population, ranging from 0.4 in Xekong to 0.1 in Vientiane Capital (Department of Planning and Cooperation, Ministry of Health, 2019).

Table 6: Number of Health Work Force in Lao PDR, 2019

No	Health Work Force	2019
1	Health facility by type by province	1221
2	Coverage of Health facilities by 1000 population	1.7
3	Medical doctors per 1000 population	0.62
4	Nurses per 1000 population	0.97
5	Midwives per 1000 population	0.24

Figure 12: Ratio of HWC per 1000 population



2.3 Status and Quality of Healthcare

2.3.1 Status of healthcare settings (number and national/private)

Health facility definition

- **Provincial hospitals** are public hospitals typically with 50-250 beds managed by a hospital director, under the supervision of the Provincial Health Office to provide healthcare, diagnostic services, treatment, rehabilitative services, research, capacity building, vaccination, and health promotion services to patients as well as supportive supervision of lower-level facilities.
- **Community hospitals** are public hospitals under the supervision of the District Health Office which provides healthcare, diagnostic services, treatment, and rehabilitative services at the intermediate-level, to patients referred by health centers.
- **Community hospital type A** has the capacity to provide basic surgery such as deliveries by cesarean section. Services are offered to patients referred by community hospital type B and health centers.
- **Community hospital type B** provides all of the above, however, does not have the capacity to perform basic surgery.
- **Health Center** is a public health facility located closer to the communities it serves under the supervision of DHO to provide primary healthcare services including medical treatment, hygiene, vaccination, disease prevention, health promotion, examination, diagnosis, treatment, and rehabilitation.
- **Health Center Type A** is located more than an hour away by vehicle from a provincial or community hospital. It is responsible for more than 7,000 people with at least 5 beds.
- **Health Center Type B** is located less than an hour away by vehicle from a provincial or community hospital. It is responsible for up to 7,000 people with no more than 5 beds.

Health services

The health-care delivery system is essentially a public system, with government-owned and operated health centers and district and provincial hospitals, complemented by private clinics/hospitals. The level of health care services in the public sector consists of four levels: 1) Primary care: 1060 Health centers and around 5239 village drug kits; 2) Secondary care: 135 District Hospitals (25 A type CEmONC, 110 B type BEmONC); 3) Secondary care: 17 Provincial Hospitals; 4) Tertiary care Central Hospitals: 3 general hospitals, 2 specialized hospitals, 3 centers for Eye, Dermatology & Venereology and Centre for Medical Rehabilitation, located in Vientiane capital (Table). Additionally, there is one Military hospital (103 Hospital) and one Police Hospital (Hospital 5 April).

The Lao public health system is mainly divided under the three arms of (a) health care; (b) prevention, promotion, and disease control and (c) health management and administration with traditionally a strong vertical structure. Healthcare systems in Lao PDR, according to the law of healthcare, consist of 1) Public healthcare system (predominant); 2) Private healthcare system (attendance increase); 3) Joint public-private healthcare system (PPP).

The private sector consists of two types of facilities: 1) Private hospitals - 29 hospitals (18 hospitals are located in Vientiane capital, but have a low level of competency), 3 new hospitals expected to have high competencies are currently under construction, 2) Private clinics reserved only for Lao

citizens - 1050 clinics (Two types: 24h and after working hours), including General Practice, Dental, EENT, Traditional medicines, Rehabilitation and others (MOH, 2019).

Almost all hospital beds are designed for acute care. There are no designated psychiatric hospitals and no long-term care institutions in the country. The chronically ill and the elderly are cared for at home (Table 7). Recently, some tertiary care hospitals have been transformed to specialist hospitals, including obstetric, orthopedic, and ophthalmology (MOH, 2019).

Table 7: Health facility profiles, 2019

Level of care	Type of Health care facilities	Number	No of beds	Range No of beds capacity
Tertiary	Central and specialist hospitals	8	1330	60–450
Secondary	Provincial/regional hospitals	17	1944	40–250
Primary	District hospitals	135	2025	10–20
	Health centres	1060	5280	1–2
	Drug kits	5239	–	NA

Source: MOH, 2019.

2.3.2 Monitoring and evaluation of quality of healthcare (including international accreditation and certification)

About 90% of the population is reported to be covered by public insurance, and that number is growing. Along with UHC, over the past decade, the Ministry of Health has been promoting positive change to improve healthcare through quality management tools. The first quality management tool, 10 Minimum Requirements (10 MR), was released in 2003, instituted the foundational commitment to patient-centered care and data tracking (MOH, 2008). The 10 minimum requirements are these:

- (1) the hospital is accessible to all patients 24 hours a day;
- (2) the hospital welcomes all patients with warmth and hospitality;
- (3) the hospital has all the essential drugs;
- (4) the hospital diagnoses and treats diseases of four major medical care departments (internal medicine, surgery, obstetrics and gynecology, pediatrics);
- (5) the hospital does tests of diseases using basic techniques of medical science;
- (6) the hospital has a patient referral system;
- (7) the hospital keeps records of all patients daily;
- (8) the hospital gives routine vaccinations and maintains a good quality cold chain;
- (9) the hospital promotes safe delivery for all mothers and gives well-baby check-ups to all children; and
- (10) the hospital monitors and evaluates maternal and child health activities regularly (MOH, 2008). The recently released 5 Goods and 1 Satisfaction (5G1S), which builds on the foundation of 10MR and focuses on better diagnosis and treatment to improve patient outcomes (MOH, 2015a).

These efforts to improve quality are important but to date, do not provide specific indicators to guide and track change. The general indicators items are: (1) warm welcome, (2) cleanliness, (3)

convenience, (4) accurate diagnosis, (5) good and quick treatment, and satisfaction by the patient (MOH, 2016).

There is high demand for quality public health care services, however, there are limitations in human resources and their distribution and limited budgets. Typically, there is an overconsumption of services at Central and Provincial hospitals and underutilization at District Hospitals and Health Centers. Private Hospitals are reported to have a low quality of care and are expensive. Private hospitals also sometimes refer the patients who are unable to pay to public hospitals. Some Lao citizens travelled to neighboring countries for better care.

2.4 Status of Public Health Agency

2.4.1 Status of public health center and relevant agencies, such as WHO office and other international organizations

The Education for Development Fund (EDF-Lao) was founded and began operations in 1997 with the aim of providing educational opportunities to local underprivileged children in Lao. <http://www.edflao.org>.

There are many donor and international agencies working in specific health activities, especially in health promotion and prevention at the grass-roots level in Lao PDR. The international organizations and donors working in specific health activities included WHO, the Asian Development Bank, Australia, European Commission, France, Japan, Luxemburg, US Centers for Disease Control and Prevention, USAID, ILO and the World Bank. Key areas for cooperation include health sector development, emerging and infectious disease surveillance and response, HIV/ AIDS, tuberculosis, malaria, maternal and reproductive health, immunizations and vaccines, child and adolescent health, non-communicable diseases, injury prevention, mental health, and environmental health. There is however fragmentation among health programmes supported by donors and a lack of coordination among the different initiatives (INGO Lao Network, 2020). USAID works to reduce child stunting in targeted areas of Lao and supports people with physical disabilities to access prosthetic, orthotics and physical therapy, including victims of unexploded ordnance. USAID also focuses on assisting with the modernization of the country's economy, promote sustainable development and biodiversity conservation, and another area of USAID's work is strengthening capacity to mitigate the spread of infectious diseases and reduce the threat of further pandemics.

According to the INGO Directory, 2020, the following international NGOs work in the health sector within the Lao PDR: Care International, Medical Committee Netherland-Vietnam (MCNV), World vision International, International Organization for migration, Adventist Development and Relief Agency (ADRA), Action with Lao Children (ACL), Chritoffel-Blinde-mission Christian Blind mission (CBM), Health Poverty Action (HPA), Union Aid Broad-APHEDA, Basic Needs (BN), Care Laos, Caritas Luxemburg, Catholic Relief Service (CRS), Child Fund Laos, Christian Outreach for Relief and Development (CORD), Family Health International 360 (FHI360), Fred Hollows Federation Australia (FHF), Danish Red Cross (DRC), Norwegian Church Aid (NCA), Norwegian People Aid (NPA), Plan International Laos, Save Children International (SCI), Population Services International (PSI), Swiss Red Cross (SRC), World Concern, World vision, World Education (WEI) (INGOs Lao Network, 2020).

The United Nations has several specialized agencies in Lao, as well as different funds and programs that work with the World Bank and the Asian Development Bank to support the SDGs and Lao's national development targets. Part of the mission of the UN Lao Country Team is to help fight poverty by ensuring a rights-based approach to development, supporting sustainable use of natural resources and preservation of cultural heritage, and promoting human rights, gender equality and good governance. Women, children, youth, and the most vulnerable populations tend to be the focus of the UN's assistance in Lao (105). There are UNAIDS, UNDP, UNEP, UNV, UNFPA, UNICEF, UNIDO, UNODC, OHCHR, ILO, FAO, WHO, IOM, IFAD, WFP, IAEA...([INGOs Lao Network, 2020](#)).

The International Labour Organization in Laos also has been working in building capacity on occupational safety and health, giving recommendations on advanced methodologies for further actions, organizing international workshops and seminars, and building a national capacity training program. According to the tripartite rule, the International Labour Organization works collaboratively with the government and private employers. According to the Decent work Lao country program- 2017-2021, ILO worked on 3 main Development Cooperation Projects (1) on Occupational Safety and Health in Lao PDR supply chains - a Vision Zero Fund project, (2) ILO-Korea partnership on Occupational Safety and Health (OSH), and (3) the "Improving the Garment Sector in Lao PDR: Compliance through Inspection and Dialogue" project, ended in mid-2017 ([ILO, 2019](#)).

The Japan International Cooperation Agency (JICA) is advancing its activities around the pillars of a field-oriented approach, human security, and enhanced effectiveness, efficiency, and speed and other stakeholders in the Lao ([JICA, 2020](#)).

Chapter 3 OSH framework

3.1 OSH Laws & Regulations

3.1.1 Major OSH laws & regulations and recent amendments

Lao PDR is in the process of developing the national OSH laws and regulation. Law and regulations relating to OSH issued under MoLSW. The following laws and regulations have regulated Laos OSH:

- Labour law modified in 1994 and 2013
- Social security law modified in 2013 and 2018
- Law on Hygiene, Disease Prevention and Health Promotion No. 04/NA dated 10 April 2001
- Law on Mining No. 04-97/NA dated 12 April 1997
- Law on Manufacturing, Agreement of National Assembly No. 01-99/NA, dated 3 April 1999
- Law on Construction No. 159/PO dated 16 December 2009
- Law on Industrial Processing No. 01/99/NA dated 3 April 1999
- Law on Agriculture No. 01/98/NA, dated 10 October 1998

1. Labour law modified in 1994 and 2013

The first labour law of Lao People's Democratic Republic, Decree No.24/PR of the President of Republic, dated 21 April 1994, promulgating law No. 002/NA of 14 March 1994 (NA, 2006), concerning Labour and amended in 2013, No. 43/NA. The law defines the principles, regulations and measures on administration, monitoring, labor skills development, recruitment, and labor protection in order to enhance the quality and productivity of work in society, so as to ensure the transformation to modernization and industrialization aimed at safeguarding the rights of employees and employers, as well as the legitimate interests and the continual improvement of their livelihoods, while contributing to the promotion of investment, national socio-economic development, and regional and international links. Legislative frameworks for OSH discuss in the Section VIII Labor occupational safety and health, Chapter 1: Protection of Labor safety and health (Article 117-126) and Chapter 2: Labors accidents and occupational diseases (Article 127-129). Also, in the Section IV: Labor Protection, Chapter 1: Labor regulation (Article 51-53) related to OSH (NA, 2013a).

2. Social security law modified in 2013 and 2018

The new law of “Social security law” amended in 2018 No. 54/NA of 27 June 2018. The law identifies that person and family members receiving benefits from social security fund in order to ensure basic livelihoods when it comes to health care, employment injury, occupational diseases, maternity, sickness, invalidity, pension, death, survivor's benefit and unemployment as prescribed on each qualifying condition. Part IV Social security benefits for enterprise sector and voluntary insured person, Chapter 2: Employment injury and occupational diseases benefits (Article 45-46) (NA, 2019).

3. Law on Hygiene, Disease Prevention and Health Promotion No. 04/NA dated 10 April 2001

Law on Hygiene, Disease Prevention and Health Promotion, published by Ministry of Health in cooperation with Department of Law's Campaign and Distribution, Ministry of Justice, Decree

No. 49/President of Lao PDR, dated 25 April 2001, promulgating law No. 04/NA. President of National Assembly dated 10 April 2001, concerning Hygiene, Diseases Protection and Health Promotion (NA, 2001).

Article 18: Sanitation in the workplace:

Sanitation in the workplace refers to taking care of the working conditions focusing on the health protection of the workers in the industry, agriculture, and handicraft sectors, etc. The workers shall be protected from diseases, chemicals, etc. which are hazardous to the workers' and their family members' health and lives.

The employer shall provide personal protective equipment for the workers, including ensuring sufficient sanitation of the work place, such as good lighting and ventilation. Temperature, relative humidity, noise, odours, dust shall not exceed the allowed standards which have been mentioned in the regulations.

The workers shall have the right to receive health checks and treatment according to the regulations stated in the Labour law, especially for those who work in the hazardous sectors.

Article 20: Sanitation in the Construction sites and Repair stations:

Sanitation in the Construction sites and Repair stations refers to the implementation of necessary measures and methods in the construction of roads, buildings and repair of houses and other activities. This implementation should meet the sanitation regulation to ensure safety and should not be hazardous to the health and lives of the workers, the community in the nearby area as well as the people who travel in the area.

To ensure the safety, sanitation and convenience of the construction sites and repair stations, the employer or the manager shall install safety signs and fences, use screens and nets to cover the said sites, or shall water the sites to protect the construction material from dusts.

4. Law on Mining, Decree No. 36/PDR, President of Republic, dated 31 May 1997, promulgating law No. 04/97/NA of 12/4/1997, concerning mining.

Article 42: Responsibility of entrepreneurs who operate mining businesses:

Chapter 6: Ensure the training and further qualification in technical fields for Lao personnel including ensuring the welfare, health and safety of the workers.

Article 45: Standard of Techniques and Technology:

When performing any mining activity, the allowed person shall use proper techniques and technology, which meet international standards and are approved by the Ministry of Industry and Handicraft and other concerned authorities to guarantee the capacity and safety to serve the environment (NA, 1997)

5. Law on the Processing Industry, Agreement of National Assembly

Law on the Processing Industry, Agreement of National Assembly No. 01-99/NA, dated 3 April 1999, regarding the approval of the law on manufacturing and Decree of the President No. 10/PDR, dated 26 April 1999, regarding the promulgation of the law on manufacturing (NA, 1999).

Chapter II: Manufacturing in Industry and Handicraft sector:

Article 14: Condition of the performance of the factory:

A factory which has received a performance license has to start its operating activity following the agreed goal, as well as ensuring the quality and standard of products and observing the regulation on safety and health and factory environment.

Group V: Environment preservation:

Article 20: Measures of environment preservation:

The establishment and performance of factory activities must be done in such a manner as to avoid or reduce the impact to society and the environment on transportation, noise, light, color, outdoor, poisons, dust, smoke, vibration, temperature, relative humidity and so on. Also, the transportation and use of poisonous chemicals must follow the regulation of the environment preservation and the regulation of the Ministry of Industry and Handicraft.

Chapter IV: Rights and duties of the manufacturer:

Article 42: Duties of the manufacturer: Provision of technical training and upgrading the status of Lao workers including ensuring the wages, welfare, health and safety of the workers.

5. Law on Construction

Law on Construction No. 0197/NA, dated 26 November 2009, regarding the approval of the law on construction and Decree of the President No.159/PO, dated 16 December 2009, regarding the promulgation of the law on construction (NA, 2009).

Chapter 6 Implementation of the Construction Project

Article 34. Prevention for Safety

The prevention of safety in general cases shall use measures according to the rules of relevant sector for example: there is an alert signal, fence around the construction site, protection tools for labor: helmets, shoes, gloves, glasses.

During any construction project execution if there is a force majeure has been arisen such as: floods, storm, fire, earthquake, soil collapse or other catastrophe that affect to the construction project operation, the contractor shall have measures of prevention and timely solve as follows:

1. Make alert signal at the construction site;
2. Temporary stop the construction then timely use reasonable measures to settle in order to ensure the safety to laborers and protect assets of the construction project;
3. Urgently reports of the events to the project's owner, relevant officers, local administration in order to have measures to timely solves.

6. Law on Agriculture

Law on Agriculture No. 01/98/NA, dated 10 October 1998, regarding agriculture, President of the National Assembly (NA, 1998).

Chapter I: General Provision, Article 6: environment protection:

A person or organization that performs agricultural activities has an obligation to preserve the environment.

Chapter II: Agricultural enterprise, Article 10: rights and obligation of agriculture entrepreneurs: obligations:

- Do not cause difficulties during agricultural production to other persons or the environment and natural resources.
- Implement technical safety measures.
- Cooperate with the management official for agricultural inspection.

Chapter V: The protection of environment:

Articles 65, 66 and 67 formulate the methods of protection environment, human resources.

Article 65: the social and natural environments have to be protected, including people, animals, earth, water, forest and air.

Article 66: Care must be taken when using and storing pesticides to prevent their negative impact.

Article 67: environment protection measures for livestock:

Livestock must be kept in appropriate places and should not be under the house or near the (water-) spring, etc. There must be regular sanitation maintenance to protect humans and the environment.

- Regulation on the Control of Pesticides in Lao PDR No. 2860/MAF, dated 11 June 2010

This regulation defines the principles, rules, and measures for controlling activities that involve pesticides in Lao PDR in order to protect human, animal and plant health, and the environment, and to be harmonized with international obligations and regulations in which Lao PDR is contracting party ([Ministry of Agriculture and Forestry, 2010](#)).

Article 23. Use of pesticides

Any person intending to use a pesticide shall recognize its characteristics and pay attention to following matters:

1. Use Integrated Pest Management and give priority to controlling pests by using natural enemies;
2. Use pesticide properly and as described on the label;
3. Wear protective equipment whenever applying pesticides. Employers should provide employees with proper equipment and training in pesticide application;
4. Ensure that the necessary measures are taken to prevent harmful effects of pesticides to human health, animals and the environment; and
5. Any accident involving pesticides that requires specialist assistance or poses a threat to human health or the environment should immediately be reported to the relevant authority.

Article 24. Disposal of pesticides

Substandard or counterfeit pesticides, expired products or pesticide waste, including empty containers shall be properly disposed or buried in an approved landfill without risk to environment. The location should be on a flat ground, far from water resources, well or ground water and follow the technical guidelines specified by Water Resources and Environment Administration (WREA).

3.1.2 Other related legislations on safety, health and environment, and recent amendments

Currently utilized occupational safety and health regulations of the Government are as follows:

- **Ministry of Labour and Social Welfare** ([Department of Labour Management, 2020](#))
 1. Decree on Occupational Safety and Health No. 22/Gov. dated 5. February 2019
 2. Agreement on diseases adoption in Laos No. 3002/MoLSW dated 16 August 2018
 3. Minister's Decision on identification of hazardous work that prohibits the use of youth employees No. 4182/MoLSW dated 23 November 2016.
 4. Agreement on Labour Inspection No. 4277/MoLSW dated 5 December 2016
 5. Instructions for the appointment of inspector and agencies responsible for OSH No. 2159/MoLSW dated 21 May 2015.
 6. Minister's Decision on Occupational Safety and Health in construction site No. 3006/MoLSW dated 21 August 2013.
 7. Agreement of organizational and implementation of OSH inspectors committee in provincial level and Vientiane capital No. 1818/MoLSW dated 20 August 2010.
 8. Agreement of organizational and implementation of OSH inspectors committee in Central level No. 4321/MoLSW dated 8 September 2009.

- **Ministry of Industry and Commerce:**
 1. Law on Chemical management (Amended) No. 07/NA, issued date 10 Nov. 2016 ([Ministry of Industry and Commerce, 2016](#));
 2. The decision on Industrial Substance and Chemical Management No. 1041/MOIC.DIH issued on 28 May 2012 ([Ministry of Industry and Commerce, 2012a](#));
 3. Agreement on managing the waste from the industrial and handicraft processing No.0555/IC, issued on 20 March 2012 ([Ministry of Industry and Commerce, 2012b](#));

- **Ministry of Agriculture and Forestry:**
 1. Decision of the Minister of Agriculture and Forestry on Organic Agriculture Standards No. 1666/MAF Issued Date: 30-12-2005 ([Minister of Agriculture and Forestry](#))

- **Ministry of Natural Resources and Environment:**
 1. Law on Environment Protection (amended) No.29/NA, issued date 18Dec. 2012 ([NA, 2013c](#))
 2. Agreement on Environmental National Standard No.2734/PMO-WREA, issued on 7 December 2009 ([Ministry of Natural Resources and Environment, 2009](#)).
 3. Decree on Approved and adopted the projects accounting and activities that will be conducted preliminary study on the impact to the environment or impact on the environment, society and nature No.8056/MoNRE, issued date 17 Dec.2013 ([Ministry of Natural Resources and Environment, 2013](#)).
 4. Instruction on the Management of Hazardous Waste, No. 0744/MoNRE, date 11 February 2015 ([Food and Agriculture Organization of the United Nations, 2015](#))
 5. Guideline on Pollution Control No. 0745/MoNRE, date 11 December 2015 ([Ministry of Natural Resources and Environment, 2015](#))

3.1.3 ILO conventions ratified

The Lao People's Democratic Republic has been a member of the ILO since 1964. The country has ratified a total of ten ILO Conventions, including:

- Fundamental Conventions: 5 of 8
- Governance Conventions (Priority): 1 of 4
- Technical Conventions: 4 of 178

Out of 10 Conventions ratified by Lao People's Democratic Republic, of which 9 are in force, No Convention has been denounced; 1 convention abrogated; none have been ratified in the past 12 months (Table 8).

Table 8 Ratifications for Lao People's Democratic Republic

	Conventions	Date	Status	Note
Fundamental				
	C029 - Forced Labour Convention, 1930 (No. 29)	23 Jan 1964	In Force	
	C100 - Equal Remuneration Convention, 1951 (No. 100)	13 Jun 2008	In Force	

	C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)	13 Jun 2008	In Force	
	C138 - Minimum Age Convention, 1973 (No. 138) <i>Minimum age specified: 14 years</i>	13 Jun 2005	In Force	
	C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)	13 Jun 2005	In Force	
Governance (Priority)				
	C144 - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144)	29 Oct 2010	In Force	
Technical				
	C004 - Night Work (Women) Convention, 1919 (No. 4)	23 Jan 1964	Not in force	Abrogated Convention - By decision of the ILC at its 106th Session (2017)
	C006 - Night Work of Young Persons (Industry) Convention, 1919 (No. 6)	23 Jan 1964	In Force	
	C013 - White Lead (Painting) Convention, 1921 (No. 13)	23 Jan 1964	In Force	
	C171 - Night Work Convention, 1990 (No. 171)	04 Jun 2014	In Force	

Source:

https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103060

3.2 Mechanisms and Status for Law Enactments

3.2.1 Mechanism and status for enactments of OSH laws & regulations (including the role of central and local authorities)

There are some mechanism and status for enactment of OSH law and regulation. As mentioned in the Section XVI Policies about toward persons with outstanding achievements and Measure Against Violators, Article 179 about Measures Against Violators mentioned that any individual or legal entity that violate the law shall be re-educated, warned, fined, subject to temporary suspension of business, subject to withdraw of business license or brought to the court proceeding based on the nature of the offence, including having to compensate for the civil damage caused, as regulated by the laws and regulation (NA, 2013a).

Based on the Labour law (NA, 2013a) and OSH Decree (NA, 2019b), laws and regulations relating to OSH issued under MoLSW, the MoLSW has a function as a secretariat of the government for developing policy, law, rules, regulations, monitoring and supporting relevant ministries, organizations and other sectors in implementing the OSH nationwide with secretariat support from

the national OSH center. In management of the OSH, the Ministry of Labor and Social Welfare has rights and duties as following:

1. Developing policies, laws, strategies, regulations of OSH and propose to the government for consideration and implementation;
2. Supervise, monitor and support the National Occupational Safety and health implementation;
3. Consider issuing license for establishing Occupational Safety and Health unit;
4. Collaborate and coordinate with other relevant ministries, organizations, and local government to implementation of occupational safety and health;
5. Implement good policy to those perform well and give penalties to those who violate the law and regulation of OSH;
6. Collaborate with other countries, regional, and global relate to OSH activities;
7. Report OSH implementation to government regularly;
8. Utilize right and perform other duties as defined in the law

The Provincial and District Department of Labor and Social Welfare has right and responsibility to the OSH as following:

1. Implement policies, laws, strategy and regulations on occupational safety and health;
2. Disseminate law and regulations on occupational safety and health;
3. Supervise, support, monitor and encourage implementation of the OSH
4. Collaborate and coordinate with other relevant departments and organizations to implementation of occupational safety;
5. Implement good policy to those perform well and give penalties to those who violated law and regulations of OSH;
6. Monitoring and collecting information of OSH;
7. Supervise, monitor, and manage activities of the OSH service unit;
8. Collaborate with international level on OSH activities based on supervision from the government;
9. Report OSH activities to provincial government and ministry of Labor and Social Welfare as regularly and timely as indicated in this decree;
10. Utilize right and perform other duties as defined in the law and regulations.

Also in the OSH decree mentioned about find for violation on Article 70 Fine for Violation. Individual, legal entities and organizations that violated this decree, law and regulation relates to Occupational Safety and Health which is not criminal shall be fine as following:

1. Against Occupational Safety and Health inspector relates entering the place to conduct inspection at the labor unit shall be fined 5 million kip per incident.
2. Does not have rules and regulations of Occupational Safety and Health at the labor unit shall be fined 5 million kip per time for labor unit which has employee less than 100 and 10 million kip which has employee more than 100.
3. Does not following with warning notification by the Occupational Safety and Health inspector particularly does not improve, correct, fix, and not stop working and using machines, equipment, and personal protective equipment shall be fined 3 million kip per time;
4. Does not follow rules and regulations of Occupational Safety and Health, not intend to improve workplace condition and environment which would lead to occupational accident

and diseases and caused employee death shall be fined 20 million kip per death of each employee.

5. Does not have Occupational Safety and Health officer or responsible person shall be fined 3 million kip per time;
6. Does not have medical checkup for employees according to rule and regulation of this decree shall be fined five hundred thousand kip per employee per time;
7. Use pregnant employee or postpartum women with breastfeeding baby during less than 12 months of age to do overtime or works which prohibits under labor law shall be fined 5 million kips per person per time;
8. Force employees to work overtime beyond indicated in the labor law shall be find 2 million kips per time.
9. Implement fine penalty shall not be over three times, if still found violation other measurement and penalties will be applied such as withdraw and temporally suspend business license.

Although, in the Labour law and OSH have mentions clearly the role of central and local authorities in enforcing the law, but the implementation and enforcement challenges remained. This is especially mechanism for small and medium-sized enterprises, micro-enterprises, formal economy, migrant workers, and constructors.

3.3 Authorities or Body, Responsible for OSH

3.3.1 Authority or body, responsible for OSH

The Authorities or body, responsible for OSH are the Ministry of Labour & Social Welfare, Lao Federation of Trade Unions and Lao National Chamber of Commerce and Industry. The Labour Management Department, Ministry of Labour & Social Welfare is one part of the Ministry and its tasks deal with protection & prevention on Occupational Safety & Health, which cooperate with Lao Federation of Trade Unions on behalf of representing of employees, and the Lao National Chamber of Commerce and Industry which is the representing of employers in Lao PDR (MoLSW, 2019). Herein called “Tripartite Organization” which is the main counterpart of Labour Management Department. The tripartite refers to representative entity consisting of the government representative as MoLSW being secretariat, the employee’s representative as Lao Federation of Trade Union (LFTU), and the employer’s representative as National Chamber of Commerce and Industry (LNCCI). The Government is having centralize and unity OSH management throughout the country and giving direct responsibility to the Ministry of Labor and Social Welfare with leadership to collaborate with other relevant ministries, organizations, and local governance authority. The Minister leads the MoLSW directly under the supervision of the Minister are 2 Vice Ministers. There are 8 departments and one Office of the Minister as following: 1) Department of Labour, 2) Department of Inspection, 3) Department of Organization, 4) Department of Social Welfare, 5) Department of Veteran and Disabled, 6) Department of Pensions and Elderly, 7) Department of Social Security and 8) Office of the Minister. Department of Labour is under the supervision of the Head of Department. There are 4 sectors: 1) Labour Policy and Planning office, 2) Labour management office, 3) Labour inspection office and 4) Labour occupational safety and health office. There are 2 offices work directly with OSH (<http://www.molsw.gov.la/ministry?a=1%20ທີ່ອົງກວມ,%208%20ກົມ>).

Based on the OSH decree No. 22/Gov, dated 5th February 2019, this is the following section briefly introduces right of authority or body, responsible for OSH at the different levels.

The Organization of the Occupational Safety and Health management

The Government is having centralize and unity OSH management throughout the country and giving direct responsibility to Ministry of Labor and Social Welfare with leadership to collaborate with other relevant ministries, organizations, and local governance authority.

Right and Responsibility of the Ministry of Labor and Social Welfare

In management of the OSH, the Ministry of Labor and Social Welfare has rights and duties as following:

1. Developing policies, laws, strategies, regulations of OSH and propose to the government for consideration and implementation;
2. Supervise, monitor and support the National Occupational Safety and health implementation;
3. Consider issuing license for establishing Occupational Safety and Health unit;
4. Collaborate and coordinate with other relevant ministries, organizations, and local government to implementation of occupational safety and health;
5. Implement good policy to those perform well and give penalties to those who violate the law and regulation of OSH;
6. Collaborate with other countries, regional, and global relate to OSH activities;
7. Report OSH implementation to government regularly;
8. Utilize right and perform other duties as defined in the law.

Right and Responsibility of the Provincial Labor and Social Welfare Department

The Provincial Department of Labor and Social Welfare has right and responsibility to the Occupational Safety and Health as following:

Implement policies, laws, strategy and regulations on occupational safety and health;

1. Disseminate law and regulations on occupational safety and health;
2. Supervise, support, monitor and encourage implementation of the OSH
3. Collaborate and coordinate with other relevant departments and organizations to implementation of occupational safety;
4. Implement good policy to those perform well and give penalties to those who violated law and regulations of OSH;
5. Monitoring and collecting information of OSH;
6. Supervise, monitor, and manage activities of the OSH service unit;
7. Collaborate with international level on OSH activities based on supervision from the government;
8. Report OSH activities to provincial government and ministry of Labor and Social Welfare as regularly and timely as indicated in this decree;
9. Utilize right and perform other duties as defined in the law and regulations.

Right and Responsibility of the District Labor and Social Welfare office

The District office of Labor and Social Welfare has right and responsibility to the Occupational Safety and Health as following:

1. Implement policies, laws, strategy and regulations on occupational safety and health;

2. Disseminate laws and regulations on occupational safety and health;
3. Monitor support and encourage implementation of the OSH
4. Collaborate and coordinate with other relevant offices to implementation of occupational safety and health works within areas of each entity responsibility;
5. Propose implementing good policy to those perform well and give penalties to those who violated law and regulations of OSH;
6. Monitoring and collecting information of OSH;
7. Summarize and Report OSH activities to district government and provincial department of Labor and Social Welfare as regularly and timely as indicated in this decree;
8. Utilize right and perform other duties as defined in the law and regulations.

Right and Responsibility of the Ministry of Health

In OSH management, the Ministry of health has rights and responsibility as following:

1. Implement policies, laws, strategy and regulations on occupational safety and health;
2. Lead organization on developing, revising the legislation for the occupational health legislation monitoring, assessing and managing;
3. Supervise and manage on WASH (water, sanitation and hygiene), disease outbreak prevention and other communicable diseases which might be occurred at the workplace;
4. Supervise health checkup for all employees include diagnostic, treatment, therapy and issue health and medical certification for victims of occupational accident and diseases including record and submit to the Ministry of Labor and Social Welfare;
5. Consider approval in establishing a unit to provide occupational diagnostic service and certification to the employees;
6. Train specialist on OSH such as nurse, physician, OSH physician specialist and technical hygienist;
7. Perform other tasks as functions of the health sector as indicates in this decree.

Rights and Responsibilities of the Relevant Ministries

Rights and responsibilities of other relevant Ministries on Occupational Safety and Health are as following:

1. Ministry of Industry and Commerce has rights and liabilities in the formation of factory's standard, buildings, and workplace; and approve the permission of import for chemical substances, machineries, manufacturing supplies; inspection of factory's standard, installation of machines, manufacturing equipment;
2. Ministry of Natural Resources and Environment has rights and being liable for managing, monitoring and protecting the environments in labor units and put measures to the labor units to avoid the impacts to neighboring communities;
3. Ministry of Public Works and Transport has rights and liabilities for developing OSH regulation and standard using in construction company, land-water –air transportation and courier service;
4. Ministry of Energy and Mining has rights and functions for developing OSH regulation and standard using in mining and energy business;
5. Ministry of Agriculture and Forestry has rights and functions to be in charge of propaganda, dissemination of information, providing for knowledge to agriculturists on the occupational safety and health; develop specific regulation on providing tools and

equipment, the use of chemical, prevention system and addressing the occupational safety and health issues under the supervision scope;

6. Ministry of Education and Sports has rights and responsibility for develop the curriculums of occupational safety and health from vocational education level in order to develop the technical specific field on occupational safety and health;
7. Minister of Science and Technology has rights and functions to conduct standard management for tools, equipment, OSH prevention system;
8. Minister of Information, Culture and Tourism has rights and be liable for develop IEC material on occupational safety and health.

Rights and Obligations of the Representative Body of the Employers

The representative body of the employers has obligations on the works of occupational safety and health as following:

1. Involve in study and consultation meeting to develop and modify policies, law and regulation on occupational safety and health;
2. Encourage and support employees, business associations, business groups to implement the laws and regulations on occupational safety and health;
3. Provide OSH advice, knowledge, and information to the employers, business associations, business groups, and other agencies under the membership.
4. Perform other duties and responsibilities as roles and functions indicated in the law.

Rights and Obligations of the Representative Body of the Employees

The Representative Body of the Employees has right and obligations to the Occupational Safety and Health as following:

1. Involve in study and consultation meeting to develop and modify policies, law and regulation on occupational safety and health;
2. Training, encourage, raise awareness raising and support employees, representative of employees, trade union units at work to implement the law, regulations relevant to Occupational Safety and Health;
3. Provide a consultancy and information to the employees, the representative body of the employees and trade union unit at the workplace;
4. Perform other duties and responsibilities as roles and functions indicated in the law.

3.4 Mechanisms for Ensuring Compliance including the System of Inspection

3.4.1 Number and inspection status of labour inspection office

Based on the Minister's Decision on Labour Inspection No. 4277/MoLSW, dated 5 December 2016 (MoLSW, 2020a), the implementation of inspection office is defined as the national inspection organization under division of inpection of labour department at the central level (MoLSW), the appointed person is considered to be a national labour inspector, which are standing at the center and every province by the specified number as mentions: in the central 10 inspectors and 3 inspectors in each province.

Previously, throughout the entire country, there were 188 labour inspectors who were under the labour division of the provincial and district levels. Due to the large number of labor inspectors, but the work was not as efficient as it should, therefore, the number of labour inspectors at the district level has been reduced, only in central, provincial and the district with a large

manufacturing industry with many workers. Currently, there are 87 labor inspectors in Lao PDR, of which 9 are in the Department of Labor, 13 in Vientiane Capital, 5 in each major province such as Savannakhet, Champassak and Luang Prabang, and 3 in each province (Table 9).

Table 9 Number and inspection status of labour inspection office

No	Provinces/Division of Labour and Social Welfare	Number of inspections	Workplaces at provincial labour division
1	Division of Labour Management	9	
2	Sekong		3
3	Attapeu		3
4	Saravanh		3
5	Champasak		5
6	Savannakhet		5
7	Khammoun		3
8	Borlikhamxay		3
9	Vientian Capital	13	
10	Vientiane Province		5
11	Xayyabouly		5
12	Luangprabang		5
13	Luangnamtha		5
14	Borkeo		3
15	Oudomxay		5
16	Phongsaly		3
17	Xiengkhuang		3
18	Huaphan		3
19	Xaysomboun Special Zone		3
	Total	22	65

In addition, the above information about the number of inspectors under the MoLSW Department of Labor, the Ministry of Agriculture (MoA), Ministry of Industry and Commerce (MoIC) also conducted inspection.

In the law on manufacturing, the role of the management and inspection authority is formulated. The said authority consists of Industry and Handicraft division, related agencies and local administration. They also have the right to inspect factories. Where the activity of the factory relates to other authorities, the inspection will be done in close cooperation with the concerned authorities and the representatives of the said authorities will participate at the inspection. The establishment and performance of the factory will be inspected focusing on the appropriate methods of building construction that meet the technical standards, the standards of machinery and equipment, product standard, safety standards, use of labour, the implementation of their rights and duties, health and impact on the environment. Furthermore, it should be an inspection as the regulation of other related authorities requested.

In the law on agriculture, there are elements that related for occupation safety health that is use a chemical; their responsibility is to train the staffs about the safety. The Ministry of agriculture enforces this.

The right of Labor inspector:

The rights of the labor inspector were first mentioned in the Agreement on Labour Inspection No. 4277/MoLSW, dated 5 December 2016 (MoLSW, 2020b) and later extended to the Decree on Occupational Safety and Health No. 22/Gov, dated 5th February 2019.

The Inspector of Occupational Safety and Health has main duties as following:

- Create plans, project, action plans and procedures on the inspection of occupational safety and health monthly, quarterly and annually;
- Enforce labour laws and regulations in labor units throughout the country efficiently and effectively by planning, monitoring and implementing labor inspections;
- Implement sanctions imposed by fines or administrative sanctions for employees and employers who violate labor laws and regulations;
- Ensure the provision of technical information and provide a consultancy to employees and employers on implement the labour laws and regulations;
- Coordinate with the related sectors in the activities and implementation of the inspections. However, in the case of necessary, the labor can be inspected but must report the results of the labour inspection to the relevant authorities later;
- Taking the issue that violated or the acts that are not yet covered by legislation inform to related authorities;
- Summarize and report the results of monthly labour inspections to provincial labour social welfare department (for the provincial level) and quarterly to MoLSW regularly;
- Perform other duties that it deems appropriate/not in conflict with legislation and not offending at other organizations, not biased or beneficial to either party, do not damage Government organization or legal entity, and do not adversely affect the relationship between employees and employers

Also in the Decree on OSH (NA, 2019b) has mentioned in the Chapter VIII, the Occupational Safety and Health Inspection as mentions below:

The Inspector of Occupational Safety and Health has he following rights:

1. Conduct inspection at all labor units and workplace at day and night time with or without advance notification if necessary;
2. Conduct inspection with each working procedure within working unit, machine operation, tools and every equipment;
3. Interview for data collection and relevant documents from employers or representative body of employers, employees or representative of employees, or other relevant people;
4. Copy all or some part of documents which found necessary for inspection;
5. Collect sample, object particle or chemical sample to examine and analyze;
6. Invite specialist/expert in the field and relevant technical officers to participate in sample examination and analysis;
7. Record motion, none motion pictures and sound for examination, analyze, and use as evident;
8. Introduce yourself by showing Inspector Identification Card or does not necessary to self - introduce to the labor unit in case self-introduction would influence work performance or dangerous.

9. Conduct inspection and measurement of workplace environment by using specific investigation tools for physical measurement include indoor air quality such as: toxic chemical, dust, noise, light, and others.
10. Order employers to improve and solving problems within appropriate time period, if workplace is probably hazardous and unsafe for employees.
11. Order to stop operating all machines or equipment or partially in case investigation found that unsafe and dangerous to employees. The stop duration of operating machines and equipment must not be more than 15 days which employers must pay for full salary to employee as normal rate during factory close for inspection.
12. Utilize right as indicates in the law and regulations.

Standards and Conditions of the Labor Inspector (MoLSW, 2020c)

The Labor Inspector is an employee appointed by the Labor Administration to conduct the Labor Inspection; the labor inspector has the following standards:

- 1) Is the officer of labor and social welfare for 3 years or more;
- 2) Has undergone training on labor inspection;
- 3) Qualified, ethical, responsible, hones;
- 4) Keeping the confidentiality of the labor unit he/she inspects;
- 5) Be respectful and strictly follow the rules and regulations;
- 6) Able to work as a labor inspector for at least 3 consecutive years before retiring or relocating to another department.

The current inspection status of labour inspection office, not all companies or business enterprises did have the labor inspector, even though, they have the labor inspector, but they did not carried out the inspection regularly. The inspectors from MoLSW did not have enough capacities and the number of inspectors to carry out inspection at the business enterprises and companies. Although by law companies are meant to undergo safety inspections by labour inspectors at least once a year, the research team found little evidence of these inspections being conducted in coffee plantations and mills. The functions of labour inspectors include enforcing the Labour Law, providing technical information and advice to employers and workers to comply with the Labour Law, and notifying the competent authority of defects or abuses not specifically covered by existing legal provisions (ILO, 2020). In addition, the studies have been carried out by ILO (2019) also showed that there were no hazards and risk assessments in the surveyed garment factories. The factories didn't establish OSH policy and procedures. There was no role and responsibilities assigned for OSH management at workplace. There were no documents relevant with OSH implementation. Some factories developed the OSH policy with signature from the top management and posted in the office, but there were 5 statements stated about OSH improvement at workplace. However, there was no actions to achieve the objectives, lack of OSH procedures such as emergency preparedness, hazard and risk management/control, OSH committee, chemical management etc. Roles and responsibilities of OSH officers were not clearly defined.

3.4.2 Utilization of private agency for inspection

The inspection of OSH is a staff of the OSH Management organization, which appointed by the MoLSW to monitor the implementation law and regulations concerning the occupational safety and health at the workplace, ensuring the employers and employees to follow their rights, functions and responsibilities. There is no private agency for inspection, however, there are private

freelances and NGOs providing the OSH consultancy, carried out the short training and small researches.

3.4.3 Reporting and notification system for workplaces

The experts highlighted that the collection, recording and notification of data concerning occupational accidents and diseases were instrumental in prevention and that it was also important to identify and study the causes of such accidents and diseases in order to develop the preventive measures. They accordingly amended a draft prepared by the Office and adopted the code of practice, noting that its provisions should be considered as the basic requirements for the collection, recording and notification of reliable data on occupational accidents and diseases, and related statistics. In addition, recommendations were made concerning equivalent requirements for the recording and notification of commuting accidents, dangerous occurrences and incidents.

Based on the motioned that, each government should nominate a competent authority or authorities, as appropriate, which should, in the light of national conditions and practice and in consultation with the most representative organizations of employers and workers, formulate, implement and periodically review a coherent national policy (hereafter referred to as “the policy”) and principles on :

- a) The recording, notification and investigation of occupational accidents and diseases;
- b) The recording, notification and investigation of commuting accidents, dangerous occurrences and incidents; and
- c) The compilation, analysis and publication of statistics on such accidents, diseases and occurrences (ILO, 2013)

The government of Lao PDR attaches great importance to OSH, distributed to the Department of Labor Management, Ministry of Labor and Social Welfare on behalf of the Government. As mentioned in OSH decree, MoLSW has appointed a labor inspector to monitor the implementation law and regulations concerning the occupational safety and health at the workplace, ensuring the employer and employee to follow their rights, functions and responsibilities. Also set out in article 26 of the OSH decree, “Record and report on occupational accident and diseases” that the employers must seek and record the causes of occupational accident and disease. The record of the causes of occupational accidents should be kept in the storage for at least 5 years and the occupational diseases should be kept at least 20 years.

The employer must report numbers of victims from occupational accident and disease to the labor management and control division every 3 months, six months, and one year. In case of there is severe occupational accident at the workplace or there are many severe employees injured from occupational accident, the employers must take following procedures:

1. There is death of an employee, serious injured or severe workplace damaged which lead to closing factory, the employer must immediately report to the labor management authority and report in written about the causes of accident include amount of lost and damage, solution, and preventive procedure within 48 hours.
2. The employers must notify social insurance about the amount of employee injured and death from the occupational accident within seven days to receive compensation according to law on social insurance including report to labor management authority.

3. If employer does not report on 1 and 2 above, employee or the representative or federation of Trade Union or family members of the victims also have a right to report.

Unfortunately, until now, there is no reporting and notification system for workplaces yet. Only the Security Scheme (SSO) keeps all records of occupational accidents involving members, since payment for hospital treatment of accidents has to be settled by this division. Until now, only occupational accidents have been reported. There have been no cases of occupational diseases reported as yet, because doctors have not certified whether or not the accident is really an occupational disease. This division has stated that it would be difficult to say which case could be occupational diseases since the OSH management is not yet strong enough.

3.5 Workmen's Compensation Insurance and Social Security Schemes covering Occupational Injuries and Diseases

3.5.1 Workmen's compensation insurance and social security schemes

The decree No. 207/PM, dated 23 December 1999, promulgated the regulation on the Social Security System. In 2013, the National Assembly endorsed a new Social Security Law and revised in 2019 (NA, 2019b), which aims to harmonize existing contributory social security schemes for the private, and the public sectors, and which for the first time allows individuals outside the formal economy to become voluntarily contributing members, providing access to health care along with benefits in disability, sickness, maternity and old age. The Social Security law is applied to enterprises, which employ more than 10 workers, however, right now, the Social Security Organization (SSO) persuades any employers with one or more employees to apply for social security voluntary. Since 2001, the Social Security Organization (SSO) is responsible for the social insurance scheme of the private sector, including state-owned enterprises.

The SSO is administered as a self-financing judicial entity under the supervision of the Ministry of Labour and Social Welfare. The social insurance scheme for the private sector is a contributory and compulsory scheme wherein both employer and employee have to pay a monthly contribution to the Social security Fund (SSF) at an equal rate of 4.5% of insurable earning, with the employer paying an additional 5% for compensation fund. The Government of Lao PDR does not contribute to the fund but provides a guarantee from bankruptcy and supervises fund management. The Government's social insurance package consists of benefits such as health insurance, sickness and maternity benefit, funeral allowance, invalidity and old age pension, and occupational disease and work accident grants to insured persons and dependents.

The division of Claim of the SSO is responsible for the collection of statistics of occupational accidents. This division keeps all records of occupational accidents involving members, since payment for hospital treatment of accidents has to be settled by this division. Until now, there only occupational accidents have been reported, but not yet the cases of occupational diseases, because doctors have not certified whether or not the accident is really an occupational diseases. The data has still not been completed because not all enterprises with more than 10 employees are members of the organization (SSO, 2015).

The main health insurance benefits include outpatient services, in-patient services, emergency services, and medical care in case of employment injury of occupational disease. SSO pays the contracted hospital for each beneficiary an advanced amount or capitation for possible treatment cost according to the number of patients that have chosen them as their hospital of treatment. The

Social Security Scheme tries to compensate and cover all kinds of occupational accidents and injuries for those who have maintained their contribution to the Social Security Scheme. Once the occupational injury had happened, the employer must take the injured person to the hospital and then informed the Social Security Organization (SSO) and the employer must record the case. If the major injury, the police was informed and a report was made. The data has still not been completed because not all enterprises with more than 10 employees are members of the said organization. Chapter 4 of the Social Security law is articulated about Employment Injury and Occupational Disease Benefit and non-work related cases in the articles 20 to 27.

The sickness benefit includes insurance for temporary incapacity at work or loss of income due to illness or injury with SSO paying 60% of the insured employee's salary. The maternity benefit equal to 100% of insured earnings is applicable for a period of 3 months after childbirth or miscarriage resulting in an injured person's inability to return to work for medical reasons. Also, in case of work injury, SSO members are entitled to financial compensation for accidents occurring in the course of their job performance. Moreover, the 'occupational disease benefit' can be redeemed for all covered health and mind diseases registered in the Ministry of Health. If a particular disease is not included in the list, the SSO Medical Board can issue a certificate that the employee acquired the disease in the course of his/her duties. Lastly, SSO can also provide financial contribution to funeral costs with a benefit equal to 2 months (death of child), 3 months (death of spouse), or 6 months (death of insured person) of an employee's insured earnings. Table 10 shows the type and benefit payments for work injury and occupational disease.

Table 10: Type and Benefit payment for work Injury and Occupational Diseases

Type of Benefits	Reason for Payment	Description of Payment	Calculation and Benefit amount
Medical Care	- Coverage of expenses for medical treatment of illness or injury caused by industrial accidents	- Medical care benefits under workplace-related benefits such as work injury and occupational disease benefits i.e. loss of physical and mental working capacity.	- Insured employee wounded by work accident or occupational diseases will receive free medical care. - If medical costs are paid from other sources, SSO will pay the balance between payment made and actual cost of medical care.
Temporary loss of work	- If the insured person's health status has not improved within 6 months, the sickness benefit will be reduced to 60% of the salary for a period of another 18 months. Thereafter, entitlement will switch to a benefit for permanent loss of working capacity.	- SSO will pay the equivalent of 100% of the insured salary or wage of the insured person for a period of 6 months. However, the first 7 days will always have to be paid by the employer. Payment will be made until employee can resume work.	- SSO will pay the equivalent of 100% of the salary or wage payable to the insured person for a period of 6 months. - Upon the expiry of the 6-month period, if the insured person's health status has not improved, the benefit will be reduced to the equivalent of 60% for a period of 18 months. - Thereafter, SSO will switch to a benefit for permanent loss of working capacity.

Partial Return to Work	<ul style="list-style-type: none"> - In case the employer refuses to comply without sufficient justification, the employer must be responsible for the sickness benefit for the employee concerned during his sickness leave. 	<ul style="list-style-type: none"> - If the new job is on a part-time basis with less income, SSO will pay the previous and current wage difference. 	<ul style="list-style-type: none"> - The employer has the duty to seek alternative work for beneficiaries whose health has not yet fully normalized. - If the new job is on a part-time basis with less pay, SSO will pay the wage differential.
Caretaker Benefit	<ul style="list-style-type: none"> - In case an employee with loss of working capacity is unable to move alone, SSO will provide benefits to caretakers. 	<ul style="list-style-type: none"> - Benefits are assessed on an hourly basis according to the time spent by the caretakers in looking after the person sustaining a loss of working capacity. This is based on the minimum salary or wage set by the Government. 	<ul style="list-style-type: none"> - Amount paid as benefits related to work injury and occupational diseases could not be broken down is available in Table 7.
Funeral benefit	<ul style="list-style-type: none"> - In case the employee dies due to a work accident or occupational disease 	<ul style="list-style-type: none"> - SSO will pay a funeral benefit equivalent to 6 months of the insured person's earnings. - Thereafter, the insured person's spouse and dependents are entitled to receive a survivors' benefit. 	
Survivor Benefit	<ul style="list-style-type: none"> - In order to be eligible for survivor's benefit, the spouse of dead insured person has to fulfil at least one of the following conditions: <ul style="list-style-type: none"> ▪ The surviving wife has reached 44 years of age or more; ▪ The surviving wife is disabled or without working capacity; ▪ The surviving wife has at least one child under the age of 18; - The surviving husband is disabled or unable to work. 	<ul style="list-style-type: none"> - Surviving spouse or parent benefit equal to 50% of the average insured earnings over a period of 12 months. - Surviving children's benefit equal to 15% of the beneficiary's average earnings during 12 months of insurance. In case there is no surviving spouse or parents, each child will receive benefits equal to 20% In cases of several children, insurance benefits must not exceed 60%. - The maximum survivors' benefit will not exceed the benefit payable for assumed permanent loss of working capacity. Children and widows remarrying within one year can receive payment. 	

Source: MoLSW. (2005). SSO Manual and Procedures, 2005.

3.5.2 Approval standards for occupational injuries and diseases

Laos has no occupational injury and diseases standards yet, only the Ministerial Agreement of each Ministry related to the occupational injury and diseases (Table 11).

Table 11 Approval standards for occupational injuries and diseases

	Name of the Ministerial Agreement	Reference:
1	Agreement on diseases adoption in Laos	No. 3002/MoLSW dated 16 August 2018
2	Minister's Decision on identification of hazardous work that prohibits the use of youth employees	No. 4182/MoLSW dated 23 November 2016
3	Minister's Decision on Occupational Safety and Health in construction site	No. 3006/MoLSW dated 21 August 2013
4	The decision on Industrial Substance and Chemical Management	no. 1041/MOIC.DIH issued on 28 May 2012
5	Agreement on the Establishment of the Environmental and Chemical Management Unit	
6	Agreement on Wastewater Release	No.0555/IC, issued on 20 March 2012
7	Agreement on air standards	
8	Agreement on Noise Standards	
9	Agreement on Industrial Waste Management	
10	Agreement on Boiling Water Management	
11	Regulation on Management and use of pesticides	No.0886/AF, dated 10 March 2000
12	Agreement on Environmental National Standard	No.2734/PMO-WREA, issued on 7 December 2009
13	Instruction on the Management of Hazardous Waste	No. 0744/MoNRE, date 11 February 2015

3.5.3 Occupational disease list

The National list for occupational diseases in Lao PDR has been developed using ILO list of Occupational Diseases was revised in 2010 (MoLSW, 2018). The first National list of Occupational Diseases for Lao PDR No. 3002/MoLSW, dated 16 August 2018, has developed for the purpose of prevention, recording, notification and compensation of occupational diseases in the country. The National list of Occupational Diseases for Lao PDR is following:

1. Occupational diseases caused by exposure to agents arising from work activities

There are 40 chemical against that mentioned in the Diseases caused by chemical agents such as beryllium or its compounds, cadmium or its compounds, phosphorus or its compounds, chromium or its compounds, manganese or its compounds, arsenic or its compounds, mercury or its compounds, lead or its compounds, fluorine or its compounds, carbon disulfide, halogen derivatives of aliphatic or aromatic hydrocarbons, benzene or its homologues, nitro-and amino-derivatives of benzene or its homologues, nitroglycerine or other nitric acid esters, alcohols, glycols or ketones, asphyxiants like carbon monoxide, hydrogen sulphide, hydrogen cyanide or its derivatives, acrylonitrile, oxides of nitrogen, vanadium or its compounds, antimony or its compounds, hexane, mineral acids, pharmaceutical agents, nickel or its compounds, thallium or its compounds, osmium or its compounds, selenium or its compounds, copper or its compounds, platinum or its compounds, tin or its compounds, zinc or its compounds, phosgene, corneal irritants

like benzoquinone, ammonia, isocyanates, pesticides, sulphur oxides, organic solvents, latex or latex-containing products, and chlorine.

Diseases caused by physical agents such as 1) Hearing impairment caused by noise, 2) Vibration (disorders of muscles, tendons, bones, joints, peripheral blood vessels or peripheral nerves), 3) Compressed or decompressed air, 4) Ionizing radiations, 5) Optical (ultraviolet, visible light, infrared) radiations including laser, and 6) Heat stroke caused by outdoor work and extreme hot temperature (over 42C).

Biological agents and infectious or parasitic disease: 1) Hepatitis viruses (laboratory workers, healthcare workers), 2) Human immunodeficiency virus (HIV) (laboratory, healthcare workers), 3) Tuberculosis (healthcare workers), 4) Brucellosis (need some data, veterinarian can be considered), 5) Anthrax (laboratory workers, veterinarian), and Leptospirosis.

2. Occupational diseases by target organ system

Respiratory diseases such as 1) Pneumoconiosis y fibrogenic mineral dusts (silicosis, anthracosilicosis, asbestosis), 2) Silico-tuberculosis, 3) Pneumoconiosis caused by fibrogenic mineral dust, 4) Siderosis, 5) Bronchopulmonary diseases caused by hard-mineral dust, 6) Bronchopulmonary diseases caused by dust of cotton, flax, hemp, sisal or sugar cane, 7) Asthma caused by recognized sensitizing agents or irritants inherent to the work process, 8) Extrinsic allergic alveolitis caused by inhalation of organic dusts or microbially contaminated aerosols, arising from work activities, 9) Chronic obstructive pulmonary diseases caused by inhalation of coal dust, dust from stone quarries, wood dust, dust from cereals and agricultural works, dust in animal stables, dust from textiles, and paper dust, 10) Diseases of the lung caused by aluminium, and 11) Upper airways disorders caused by recognized sensitizing agents or irritants inherent to the work process.

Skin diseases such as: 1) Allergic contact dermatoses and contact urticaria caused by other recognized allergy-provoking agents arising from work activities not included in other items, and 2) Irritant contact dermatoses caused by other recognized irritant agents arising from work activities not included in other items.

Musculoskeletal disorders such as 1) Radial styloid tenosynovitis due to repetitive movements, forceful exertions and extreme postures of the wrist, 2) Chronic tenosynovitis of hand and wrist due to repetitive movements, forceful exertions and extreme postures of the wrist, 3) Olecranon bursitis due to prolonged pressure of the elbow region, 4) Prepatellar bursitis due to prolonged stay in kneeling position, 5) Epicondylitis due to repetitive forceful work, 6) Meniscus lesions following extended periods of work in a kneeling or squatting position, and 7) Carpal tunnel syndrome due to extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three. Mental and behavioural disorders: 1) Post-traumatic stress disorder (table 12-14).

3. Occupational cancer

Cancer caused by the following agents: 1) Asbestos, 2) Benzidine and its salts, 3) Bis-chloromethyl ether (BCME), 4) Chromium VI compounds, 5) Coal tars, coal tar pitches or soots, 6) Betanaphthylamine, 7) Vinyl chloride, 8) Benzene, 9) Toxic nitro- and amino-derivatives of benzene or its homologues, 10) Ionizing radiations, 11) Tar, pitch, bitumen, mineral oil, anthracene, or the

compounds, products or residues of these substances, 12) Coke oven emissions, 13) Nickel compounds, 14) Wood dust, 15) Arsenic and its compounds, 16) Beryllium and its compounds, 17) Cadmium and its compounds, 18) Ethylene oxide, and 19) Hepatitis B virus (HBV) and C virus (HCV) (healthcare and laboratory workers)

4. Other diseases such as Miners' nystagmus caused by low light and underground work

Table 12 Key criteria for diagnosing an occupational disease*

Key criteria	Additional explanation
The clinical features must fit in with what is known about the health effects following exposure to the specified agent.	The symptoms and signs should fit, and this may be supported in some cases by suitable diagnostic tests.
There must be indication of sufficient occupational exposure.	Evidence on exposure may be obtained through taking the: <ul style="list-style-type: none"> - occupational history, - results of occupational hygiene measurement taken at the workplace, - biological monitoring results, if any test is available and - records of incidents of over-exposure, if any record available.
The differential diagnosis must be considered.	There are non-occupational condition that have similar clinical features as occupational diseases, and a physician will have to take this into account before diagnosing or excluding an occupational disease.

The key criteria for diagnosing occupational disease developed based on EU Guideline. Refer to Information notices on occupational disease: a guide to diagnosis. Luxembourg: Office for Official Publications of the European Communities, 2009:227-261.

Table 13. Templates for national occupational diseases statistics

Classification of occupational diseases	Number of new cases	Number of cumulative cases	Number of cases per 10 000 employed persons
Diseases caused by agents			
<i>Diseases caused by chemical agents</i>			
<i>Diseases caused by physical agents</i> 1. Hearing impairment caused by noise 2. Diseases caused by vibration			
<i>Diseases caused by biological agents</i>			
Diseases caused by target organ			
2.1 Occupational respiratory diseases 2.1.1 Pneumoconiosis caused by fibrogenic mineral dust			

2.1.3. Pneumoconiosis caused by non-fibrogenic mineral dust 2.1.5. Bronchopulmonary diseases caused by hard-metal dust 2.1.6. Bronchopulmonary diseases caused by dust of cotton 2.1.7. Asthma 2.1.8. Extrinsic allergic alveolitis			
2.2 <i>Occupational skins diseases</i> 2.2.1. Allergic contact dermatoses and contact urticarial caused by other recognized allergy-provoking agents arising from work activities not included in other items 2.2.2. Irritant contact dermatoses caused by other recognized irritant agents arising from work activities not included in other items			
2.3 <i>Occupational musculoskeletal disorders</i> 2.3.1. Radial styloid tenosynovitis 2.3.2. Chronic tenosynovitis 2.3.5. Epicondylitis 2.3.7. Carpal tunnel syndrome			
2.4. <i>Mental and behavioural disorders</i>			
Occupational cancer Asbestos-induced diseases and cancer Wood dust 3.1.20. Hepatitis B virus (HBV) and hepatitis C virus (HCV)			
Others			

Table 14: Template of Occupational diseases by category of industry.

#	Type of enterprises/or occupation	Number of occupational disease cases			Cases per 10 000 employed persons		
		Men	Women	Total	Men	Women	Total
1	Agricultural employers and self-employed farmers						
2	Mine, mining industries						
3	Construction and building materials						

4	Manufacture, and all other types of industries						
5	Public service sector, health, education						
6	Others						
	Total						

However, the list of occupational injuries and diseases were not implemented into practice yet as there were no training on the list of occupational injuries and diseases yet.

3.6 Workplace Organization for OSH Management

3.6.1 Workplace organization for OSH management by regulations, the approval standards for occupational injuries and diseases

According to the Labour law and Decree on OSH, section 6, article 30 mentioned that the workplace organization for OSH management by regulations, the approval standards for occupational injuries and diseases while policy oversight is the responsibility of the department of Labour, MoLSW. The approval standards for occupational injuries and diseases are based on the Labour law and OSH decree, The Social Security Organization was established to respond to the necessity of the Social Security Scheme. There were no OSH management at the working places.

According to the study have been carried out in the garment factory, the factory didn't establish OSH policy and procedures. There was no role and responsibilities assigned for OSH management at workplace. In addition, there was no documents relevant with OSH implementation (ILO, 2019).

3.6.2 OSH committee

According to the Decree on Occupational Safety and Health No. 22/Gov, dated 5th February 2019 (NA, 2019b), the Committee of Occupational Safety and Health is not officers sitting in one duty station and it consists of members as following:

1. The National Committee of Occupational Safety and Health
2. The Provincial Committee of Occupational Safety and Health

Committee of OSH at each level has its own secretariat

The National Committee of Occupational Safety and Health is nominated by the Prime Minister based on the proposal of the Ministry of Labor and Social Welfare, which function as a secretariat of the government for developing policy, law, rules, regulations, monitoring and supporting relevant ministries, organizations and other sectors in implementing the OSH nationwide with secretariat support from the national OSH center. The Minister of MoLSW is the Chair of OSH national committee, Deputy Minister of the Labor and Social Welfare, Deputy President of Lao Federation of Trade Union, and Deputy President of Lao National Chamber of Commerce and Industry are the Vice-chair of OSH national committee. Representative of the Ministry of Health, Ministry of Industry and Commerce, Ministry of Natural Resources and Environments, Ministry of Public Works and Transports, Ministry of Energy and Mining, Ministry of Education and Sports, Ministry of Agriculture and Forestry, Ministry of Sciences and Technology, and Ministry of Information, Culture and Tourism are the member of OSH national committee.

The Provincial Committee of OSH is nominated by the provincial governor based on the proposal of the Provincial LSW department. The committee has function as a secretariat for the provincial governance to monitor and support relevant departments and other sectors in implementing the OSH under the responsible area by having the provincial LSW department as a secretary. In Provincial Committee of OSH, Director of the Provincial MoLSW Department is the Chair of OSH provincial committee, Deputy director of Provincial Labor and Social Welfare Department, Deputy President of the Provincial Federation of Trade Union, and Deputy President of the Provincial Chamber of Commerce and Industry are the Vice-chair of OSH provincial committee. Representative of the Provincial Health Department, Provincial Natural Resources and Environment Department, Provincial Public Works and Transport Department, Provincial Industry and Commerce Department, Provincial Energy and Mining Department, Provincial Education and Sports Department, Provincial Agriculture and Forestry Department, Provincial Science and Technology Department, and Provincial Information, Culture and Tourism Department are the member of OSH provincial committee.

3.6.3 OSH training at workplaces

MoLSW cooperation with the ILO (ILO/OSH office BANGKOK), have organized several OSH training courses on small construction sites (WISCON) and Work Improvement for Small Enterprises (WISE). The ILO has provided a lot of support, especially the technical knowledge as well as the financial support to train the Labour involved staff. From this project the MoLSW and the ILO focused on the capacity building. Many staff of the representative of government, employers and workers has been trained.

Department of Labor Management, MoLSW

Department of Labor Management, MoLSW is one department under the organizational structure of the Ministry (http://www.molsw.gov.la/assets/source/document/ພາລະບົດບາດກົມຄຸ້ມຄອງ.pdf). The roles of the departments are: Assist the Minister in drafting Labour policy, regulations, regulation on the management of the use of Labour, Labour skill development and employment promotion for Lao citizens based on the Labour law and decree on the organizational structure and activity of the Ministry of Labour and Social Welfare. The Department of labor management consists of 4 Divisions: 1. Division of Labour Policy and Planning; 2. Division of Labour Protection; 3. Division of labor control; 4. Division of OSH. The Division of Labour Protection is responsible for Occupational safety. Decree of the organization and the activities of labor management No. 2828/MoLSW, dated 8 August 2013/Minister of MoLSW is referred to the Organization and Activity of the Department of Labour which is described the roles and responsibilities of the Division of Labour Protection. In terms of OSH, Faculty of Medical Technology, UHS has tools for checking air (given by an international organization/no further details) which are used to educate students.

The National OSH Training Center, LNCCI

The “National OSH Training Center” is the only institution, which organizes OSH-related training courses for employers of small enterprises and their workers. The “National OSH Training Center” is the only institution, which has an OSH trainer team, which can provide OSH training. Besides that, there are more than 20 WISE trainers who participated at the first WISE training of

trainers in August 2000. Most of them returned to their original institutions or enterprises. They could operate as OSH practitioners at their enterprises to help the enterprises in OSH improvement.

The Ministry of Industry and Handicraft has sometimes organized OSH-related training in industry. This kind of activity has mainly occurred in cooperation with a donor agency. It is observed that the training activity depends on the action plan of the donor agency. The ministry just operates as a coordinator.

Lao Federation of Trade Union

The workers' organization – Lao Federation of Trade Union – also has an OSH trainer team of their own. The team organizes OSH training in the enterprises using the HIV/AIDS Programme in addition to OSH and ILO's WISE programmes.

ILO

The ILO supported the MoLSW in organizing many OSH training and has conducted the first Training-of-Trainer course in Lao PDR to improve occupational safety and health in the country's coffee sector. Organized in the context of the Vision Zero Fund (VZF) project for Lao PDR – funded by the EU- the training aims to reduce the number of fatal and severe occupational accidents and diseases in the coffee sector. The course built participants' knowledge on occupational safety and health in agriculture in general and the specific safety and health issues faced by coffee farmers in particular (ILO, 2019).

3.7 Personnel engaged in the area of OSH

3.7.1 Legal qualification requirements for personnel engaged in the area of OSH, such as safety and health officers, safety engineers, occupational physicians, and hygienists

The labour law (GoL, 2013) mentioned in the section VIII Labour Occupational Safety and Health, Article 123 (New) Officials and Responsible Unit on the Labor Health and Safety in a Labor Unit

Economic labor units with one hundred or less employees must have at least one employee responsible for labor health and safety. Labor units or workplaces working in the area of construction and mining must have at least one employee responsible for labor health and safety. Labor units with over with one hundred employees must appoint a unit and in case of necessity, a safety and health board responsible for labor and health shall be established.

Employee responsible for labor health and safety must have the knowledge or have undergone training, or have a degree or certification from an institute or organization in regards to labor health and safety recognized by the Labor Administration Agency. In the OSH decree in the Chapter III, the Occupational Safety and Health Services Organization; Article 36 training OSH specialist mentioned that the National Occupational Safety and Health Center including public and private educational institution must train OSH specialist in order to ensure every areas of work such as: engineering, hygienist, OSH physicians and nurses, and OHS researchers.

3.7.3 Minimum staffing standards for personnel engaged in the area of OSH

As well as in the Article 28, Occupational Safety and Health Specialist mentioned that each labor unit complies of between 101 to 1000 employees; the employer must hire an occupational safety and health specialist particularly occupational physician/ doctor, nurse, hygienist, engineer either

as a full or part time. For labor unit, which have more than 1000 employees, the employer must hire one full time OSH specialist.

However, this minimum staffing standard had not been inspected yet at the labor unit, especially in labor units with over with one hundred employees, whether the employee responsible for labor health and safety have been legal qualification requirements. Meanwhile, no data has been collected on how many employees responsible for labor health and safety are currently working and applying in OSH.

3.8 Legal Requirements for Workplace Activities for OSH Management

3.8.1 Legal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc.

Decree on occupational safety and health, Section 4 Prevention and Control of Hazardous factors (article 16-18) are articulated Regal requirements for regular activities related to OSH, such as management system, risk assessment, health examination, environmental monitoring, and etc. (MoLSW, 2019). However, in practice, there are still many issues that have not been strictly addressed, such as many workplace especially small and medium-sized enterprises have no OSH committee or some have committee but it was not functioning as the committee, didn't conduct the hazard assessment at workplace with implementation of corrective action plan. In addition, the OSH committee procedure, roles and responsibilities of the OSH committee members were not clearly defined. There was no training documents or degree or certification from an institution or organization in regard to labor health and safety recognized by the Labor Administration Agency for the review. Also, there was no hazard and risk assessment conducted and some enterprises didn't know their have to do risk assessment.

Health examination mentioned in the decree on OSH, Section 5 Prevention and Assistance to Employees with Occupational Accidents and Diseases (article 24, 25).

Health Checkups of Employees

Employer should allow the domestic and foreign employees to have yearly health examination or check as indicated on Article 126 of Labor Law on occupational safety and health which employee has been assigned and as to provide assistance on time. Prior to hiring new employee and employee transferred from hazardous workplace, they must receive physical checkup and examination which employee must cooperate with employer.

For employee regular checkup, the employer has to sign contract with the health facility which certify by health sector and labour and social welfare sector to do the said health check-up. It does not allow employer-paying cash to employee for proceeding health checkup by themselves.

The Ministry of Labor and Social Welfare in collaboration with MOH determines the periodic-employment health checkup based on the work risk and dangerous level and result of the actual health examination. However, all employees must have health check-up at least 1 time per year. The result of medical checkup will not be used for the purpose of discrimination or for other reason that may be negative effect to the employee.

Recording of Employment Health Checkup

Based on the current condition at each period, MoLSW collaborate with MOH identify and provide indicator list of health checkup to the occupational health clinic/facility. MoLSW and MoH have the right to record information on health checkup of all employees for medical purpose and social insurance including follow up monitoring, treatment and compensation according to the rules. Employees have right to know every health check-up result of them. However, not yet investigation that all the workplace has follows the decree on OSH on health checkup of employees.

3.8.2 Mechanisms to prevent industrial disaster protect environment and promote public safety

The Ministry of Industry and Commerce (MoIC) has the law and regulation to prevent industrial disaster protect environment and promote public safety such as Law on Chemical Management, There are six environmental agreements as following: Agreement on the Establishment of the Environmental and Chemical Management Unit, Agreement on Wastewater Release, Agreement on air standards, Agreement on Noise Standards, Agreement on Industrial Waste Management, and Agreement on Boiling Water Management.

MoIC has appointed officials from the Ministry to inspect the management of industry in the implementation of chemical safety management. All chemical business operations must conduct research and assess the risks of chemicals to health and the environment in transportation, storage, use, carding and disposal. In addition, it provides detailed information on preventive, remedial and first aid and initial assistance in case of emergency. However, implementation and enforcement challenging remain. This is particularly the small and medium-size enterprises do not follow the safety regulation and health.

3.9 Education and Supply for Personnel engaged in the area of OSH

3.9.1 Educational system and contents for personnel engaged in the area of OSH

There is no specific educational system for personal engaged in the area of OSH. There are 10 health care educational institutions are currently under the jurisdiction of the MOH (Ministry of Health). Its main role is to improve the quality of health professional development through improvements to training curricula, teaching skills, educational resources, materials, and educational facilities (See in the chapter 2).

Faculty of Public Health, - UHS

The Faculty of Public Health, of the University of Health Sciences run the Master of Public Health, which has one Module on Environmental Health and Occupational Health and Safety under Master of Public Health program. This module provides postgraduate students with the basic concepts, principles and current trends on occupational health and safety. It also provides the participant the opportunity to administer specific preventive, control and maintenance programs necessary for the health and safety of the worker.

Master of Environmental and Occupational Health

The curriculum of Master of Environmental and Occupational Health curriculum will be developed which is intended to prepare students for careers or responsibilities dealing with environmental health and health and safety problems in the workplace. It is designed for professionals with diverse academic backgrounds. The curriculum is also designed to provide in-depth knowledge and skills in specific areas of environmental health and work in occupational

health and public health relevant to the student's career goals. There are no laboratories for general hygiene, occupational hygiene, and environmental hygiene.

3.9.2 List of universities and training institute

Totally ten institutions provide the health care professional training. The University of Health Sciences, the Institute of Public Health and Tropical Medicine (LaoTPHI) are the major training institutions in Vientiane. At the provincial level, there are three colleges of health sciences (Luang Prabang, Savannakhet, and Champassack) and four public health schools (Oudomxay, Xiengkhuang, Vientiane, and Khammuane) (The detail in chapter 2).

3.9.3 Supply and availability for personnel engaged in the area of OSH

Public/Private OSH agency

Only short-term training available for personal engaged in the area of OSH, and the training hold by the enterprises. The tripartite (MoLSW, LFTU, and LNCCI) has a role in the implementation of training on OSH at workplace. The Design Center is the training center of the LNCCI (an employer's organization). The center has an OSH trainer capacity and can provide OSH advice and organize OSH training. On the other hand, a trainer from the Design Center assisted in training of trainers from the Lao Federation of Trade Union (a workers' organization). The team of trainers for LFTU provides OSH training for enterprises.

Only one private OSH agency has approved from the department of Labour management to provide OSH training to the private company in Lao PDR and can providing the OSH certificate. Also, in the big company have OSH trainer and provide OSH training in their enterprises.

3.10 Activities and Involvement by International Organizations, Academic Insistutes and Non-Governmental Organization

3.10.1 OSH activities and involvement by international organizations, academic institutes and other agencies, such as Non-Governmental Organization

There are some Non-Governmental Organization working such as ILO, Vision Zero Fund (VZF), and WHO.

ILO have been carried out the OSH activities based on the framework and strategy of ILO. ILO decent work strategy (2011-2015) to improve nstitutional and legal mechanisms for the [promotion of Occupational Safety and Health in the workplace](#). To help Lao PDR achieve this goal, the ILO provided assistance in finalizing and implementing the national OSH programme based on the existing ILO Plan of Action (2010-2016) to achieve widespread and effective implementation of the OSH instruments (Convention No 155, its 2002 Protocol and Convention No 187). It will also seek to strengthen –through a programme of capacity building- national OSH capabilities in a range of areas, including legislation and inspection, awareness-raising, and training for small enterprises and informal workplaces. ILO also provided assistance to enable social partners to apply existing good practices developed by ASEAN OSHNET in small entreprises and informal economy workplaces across the country ([ILO, 2011](#)).

The joint development process of the 2017–21 Decent Work Country Programme (DWCP) is interrelated and mutually reinforcing programme drivers underpin the DWCP and are reflected in the four DWCP priorities:

- Promotion of **decent employment** (particularly in rural areas), through the development and implementation of a National Rural Employment Strategy; strengthening of employment services and labour market information; entrepreneurship promotion; improving labour migration policy frameworks; and technical/vocational skills development to meet the demands of a changing labour market;
- Promotion of **formalization of employment** through implementation of the Vientiane Declaration on Transition from Informal Employment to Formal Employment towards Decent Work Promotion in ASEAN (2016), which in turn is closely linked to addressing vulnerability and increasing decent and productive employment opportunities, especially in rural areas;
- Strengthening and expansion of **social protection**, including measures to ensure Lao PDR is able to meet the vulnerability criteria for Lao PDR to achieve eligibility for LDC graduation;
- Strengthening of **tripartite mechanisms** as well as **partner institutional and technical capacities** to (1) work effectively with each other to achieve national development objectives and (2) promote and serve the interests of their respective constituencies; and
- Ongoing ratification and implementation of **international labour Conventions**, which provide the cornerstones of all aspects of the programme, including implementation of the Labour Law (2014).

WHO works related to OSH in Laos included working with the Ministry of Public Health and Ministry of Labor and Social Welfare. The Ministry of Labour and Social Welfare in Lao People's Democratic Republic in partnership with the World Health Organization had invited stakeholders from the government, Federation of Trade Unions, National Chamber of Commerce and development partners to review the occupational health and safety regulations under the Prime Minister Decree to protect the health, safety and well-being of its workforce. WHO worked with the government to address the gaps, challenges, and essential occupational health and safety services; the health, safety and well-being of the workers should not be compromised and this comes in timely as the country continues to grow and we will see more young and rural people joining the workforce." The five strategic priorities for WHO collaboration with the Lao People's Democratic Republic in 2017–2021 are: 1) resilient health systems towards universal health coverage; 2) effective delivery of essential public health programmes; 3) enhanced health security; 4) effective policy dialogue and advocacy; and 5) active partner in the Greater Mekong Subregion and the Association of Southeast Asian Nations (ASEAN) (WHO, 2017).

3.11. Occupational Health Services including Industrial Hygiene

3.11.1 List of occupational health service providers and their service contents and quality (national/private)

The occupational services in Laos include in the general health service, there is no specialize occupational services providers. The occupational injury and diseases were treated in the public hospital or general private hospitals.

The health-care delivery system in the Lao People's Democratic Republic is historically a predominantly public system, with government-owned and -operated health centres and district and provincial hospitals. The private health sector has emerged recently along with increasing demand for better services; public facilities are perceived as substandard.

Health services at the secondary and tertiary levels in the Lao People's Democratic Republic are provided through 4 central general hospitals: Mittaphab (Friendship) Hospital, Mahosot Hospital, Setthathirath Hospital, 103 hospital; 3 specialist hospitals: Mother, Child Hospital, National Child hospital, and obstetric, orthopaedic or ophthalmology hospitals; and 1 center care: Rehabilitation center in the capital city, in addition to 16 regional and provincial hospitals.

Almost all hospital beds in the Lao People's Democratic Republic are designed for acute care. There are no designated psychiatric hospitals and no long-term care institutions in the country. The chronically ill and the elderly are cared for at home. There have been some changes within the hospital system: some tertiary care hospitals were transformed to specialist hospitals, such as obstetric, orthopaedic or ophthalmology hospitals.

Emergency care is mainly provided by Mahosot Hospital for internal medicine and Mittaphab Hospital for surgery. Involvement in emergency care has an important meaning for Setthathirath Hospital too, however, as this hospital transferred serious cases of injury to Mittaphab Hospital, it is presumed that external injuries treated by Setthathirath Hospital are mild to moderate cases, such as non-open fracture and soft tissue injury. Likewise, for emergency care in internal medicine, as this hospital is not able to carry out CT examination at present, serious cases need to be transferred to Mahosot Hospital.

Mittaphab (Friendship) Hospital

Mittaphab Hospital is in charge of external injury treatment, orthopedics, neurosurgery and renal dialysis. The hospital is also Specialized in internal medicine, pediatrics, OBGYN and infertility, ophthalmology, X-ray, echo ultrasound, ECG, and EKG, mammogram, laboratory facilities, and mental health. A new wing has opened at Mittaphab Hospital (Friendship Hospital) in Vientiane as part of efforts to improve the standard of healthcare and raise the country's health services to international standards. The new block will have about 308 beds, to add to the hospital's existing 300-bed capacity ([Vientiane Times, 2019](#)). The building will be fitted out with modern equipment for use in general diagnosis, as well as for radiology and magnetic resonance imaging and other specialised fields. The extension to the hospital is in line with the government's policy to modernise healthcare through the use of the latest equipment and skilled personnel.

Mahosot Hospital

Mahosot Hospital was established in 1903. The hospital specializes diagnosis and treatment of infectious diseases and also serves as an important medical research and training center. Since 2000, the hospital has included the Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit which is funded by the Wellcome Trust in collaboration with the University of Oxford. The Infectious Diseases Centre in the hospital consists of two floors: a patient ward on the ground floor with rooms varying on degree of isolation, a laboratory and research area and offices and conference rooms on the upper floor ([Wikipedia, 2020](#)).

Recently, the Mahosot Hospital will be reconstructed as a four-building compound spread over 31,000 m² comprising one 8-story building, two 4-story buildings and one 5-story building. The hospital will have a total of 600 beds. The hospital will be built to international standards to ensure

it can provide standard medical service to more patients thus helping limit people seeking medical services ([Vientiane Times, 2017](#)).

Setthathirath Hospital

Setthathirath Hospital has more cancer outpatients and inpatients. In recent years, the number of its outpatients has been significantly increasing, reaching 90,000 per year ([Vientiane Times, 2019](#)).

Centre for Medical Rehabilitation (CMR)

The Lao government Centre for Medical Rehabilitation (CMR) provides physiotherapy, prosthetics and orthotics, and orthopaedic surgery outpatient services, including an early intervention program for children with disabilities and developmental delay rehabilitation services in provinces community-based rehabilitation. The CMR project is focused on improving the technical skills and knowledge of current CMR and PRC staff through sending staff for 1 week up to 3 months to training programs in Thailand and conducting trainings at the CMR with international trainers. Doctors, nurses, physical therapists, and ortho-prosthetist from CMR and local hospitals will be trained. Training will take place in Khon Kaen, Chiang Mai (Thailand), or at the CMR ([WHO, 2014](#)).

3.12 Support Mechanisms for Disadvantageous Group of Workers

3.12.1 Status and support mechanisms for workers in small and medium-sized enterprises, workers in micro-enterprises, workers in the informal economy, migrant workers, and contractors

Decree on OSH is articulated in the Section VI responsible to informal workers, small scale labor unit, households and migrant workers between countries (Article 29-32) which was mentioned on support mechanism for informal workers, small scale labour unit, household and migrant workers between country such as

Article 29: Responsible to Work in Informal Labor

The labor management authority has responsible for giving consultation, advice relate to Occupational Safety and Health to employee working outside the labor unit, including self-employed workers on protection plan develop, risk assess and reporting information relate to occupational accidents and diseases.

Article 30: Responsible for Small Scale labor unit

The labor management authority encourages and assists the labor unit which has employee less than 10 persons to implement OSH.

Article 31: Responsible to Household

The labor management authority encourages the household which use employees to have contract signed between the employer/household and the employee. In case of occupational accident and disease occurred, the head of household must responsible for taking for expenses under signed contract agreement and law.

Article 32: Responsible for Labor Migrant Between countries in Lao PDR

Foreign workers work in Lao PDR will received protection on safety and health the same as other Lao workers and must receive health examination from the relevant unit which certified by health sector prior to getting approval to work in Lao PDR.

Lao workers which to work in foreign countries must receive basic training on OSH and health examination according to Lao regulation and host country where employee is going to work including social insurance for occupational accident and disease in that countries.

Chapter 4: OSH level

4.1 National Policy and Strategies for OSH

4.1.1 Conditions, details and operational status of national policy, strategies and plans for OSH

Lao occupational safety and health (OSH) has been regulated by a wide range of national policy, strategies and plans for OSH, in particular:

- 1st National OSH Strategy (2005-2010)
- 2nd National OSH Strategy (2011-2015)
- Decree on Occupational Safety and Health, No 22/Gov, dated 5/2/2019 as developed a set of specific rules on OSH.
- Ministerial Decision on OSH in the construction site, No 3006/MoLSW, dated 21/8/2013

1. 1st National OSH Strategy (2005-2010)

The establishment of an Occupational Safety and Health (OSH) Master Plan in 2005 by the MoLSW initiated awareness of OSH issues. The national OSH master plan focused on building on inspector capacity and OSH protection in small enterprises and construction sectors. The strategy helped to highlight the changing nature of occupational risk in the emerging economic environment (MoLSW, 2005).

Implementation and enforcement of OSH has remained challenging however particularly where use of new technologies and chemicals within industrial processes are common but the risks often unknown by workers or, in some cases, OSH inspectors. Support to OSH from development partners has been limited; however, the significant rise in FDI and new risks indicate that this is an area where further effort is required (ILO, 2011).

2. 2nd National OSH Strategy (2011-2015) articulates the establishment of OSH at the provincial level; Enact OSH Legislation; Capacity building for OSH staff; Strengthen OSH Inspection; Improve work accident and Occupational Diseases reporting system. The 2nd National OSH Strategy (2011-2015) consists of 1) Establish Occupational Safety and Health Organizations at Provincial Level; 2) Enact Essential Occupational Safety and Health (OSH) Legislation; 3) Capacity Building for Occupational Safety and Health Staff; 4) Strengthen Occupational Safety and Health Inspection; 5) Improve Work Accident and Occupational Diseases Reporting Systems; 6) Occupational Safety and Health Research and Development; 7) Control Prevention Work Accidents and Occupational Diseases; 8) Occupational Safety and Health Promotion and Dissemination; 9) Study & Research for Establish Occupational Safety and Health Institute (MoLSW, 2011).

3. Decree on Occupational Safety and Health, No 22/Gov, dated 5/2/2019 developed a set of specific rules on OSH.

The new national decree on Occupational Safety and Health (No. 22/G) was formally approved by the Prime Minister on 5 February 2019 and provides clarification on the chapter on OSH in the Labour Law (NA, 2019b). The Decree is the first legislative instrument that defines the minimum requirements for OSH management systems in the workplace; the obligations of the Government and the structure of coordination at the central and provincial levels; the roles of employers and employees; and a basic set of occupational health and safety services, such as workplace inspection, workers' health surveillance, and notification and cause investigation of occupational diseases and injuries in the workplace.

The Decree on Occupational Safety and Health consisted of 10 chapters. Chapter 1 is about general provisions and Articles 1-7. Chapter 2 is about Occupational Safety and Health and Articles 8-32. Chapter 3 is about The Occupational Safety and Health Service Organization, Articles 33-44. Chapter 4 is about Revenue of Occupational Safety and Health, Articles 45-46. Chapter 5 is about Prohibitions and Articles 47-49. Chapter 6 is about Committee of Occupational Safety and Health and Articles 50-53. Chapter 7 is about Tripartite Organization and Articles 54-61. Chapter 8 is the Occupational Safety and Health Inspection and Articles 62-65. Chapter 9 is about Incentives to the Good Performers and Measures Against Violators and Articles 66-71. Chapter 10 about the final provisions and Articles 72-73 (NA, 2019b).

The OSH decree, provides for the following:

- 1) Ensure employers follow rules, steps, and measures relate to occupational safety and health;
- 2) Recognize, reward employees and units that are successful in implementing the rules and regulations related to occupational safety and health;
- 3) Collaborate with relevant sectors to develop, lay out measurement, enforce to ensure occupational safety and health of employees, and pay for employee's occupational accident and diseases insurance.
- 4) Train and advise on rules, regulations, steps, and measure safety to employees under employer responsibility.
- 5) Provide and move employees to appropriate position based their ability and characteristics to avoid negative health impact to employee;
- 6) Hire external individuals or a company for evaluation and investigation of imcompliance with occupational health and safety;
- 7) Encourage employees in risk prevention, emergency response, and use individual safety protection equipment and medical first aid.

Employers are responsible for establishing, implementing, and following up each activity to ensure occupational safety and health.

Legal employers are responsible for:

- Providing information and advice to employees related to t workplace hazards, standard operating procedures (SOP) for tools, equipment and materials relevant o area of work in relation to occupational safety and health.
- Providing a comfortable and safe work environment for employees and preventing the risk of individuals being exposed to any occupational health issues caused by chemical, physical and biological products during processing
- Providing protective clothing and additional appliances such as substances, food and products to reduce toxic effects when employees work in unusual working conditions.

The employees' rights are following:

- 1) Request employers to create workplace environment which ensures the occupational safety and health;
- 2) Receive information, knowledge, and protection measure related to risk factors and toxicity;
- 3) Request employer provides appropriate work placement to employees after he/she is recovering from treatment due to occupational accidents or diseases;
- 4) Refuse work with a high risk of adverse health impacts them;
- 5) Claim or report directly to the labor management organization in case the employer does not improve workplace environment as request by employee or follow the labor law and this decree.

4. Ministerial Decision on OSH in the construction site, No 3006/MoLSW, dated 21/8/2013, consisted of XIV chapters (Chapter XII-Personal occupational safety: Article 35-36. Chapter XII-Appointment of responsible for labour OSH; Article 37-42. Chapter XIV- OSH measurement (Article 43-45). This decree is applied in the specific construction industry ([MoLSW, 2013a](#)).

Employers shall provide equipment and workers shall use such while working in the following:

- 1) Safety helmets, facemasks and boots that cover the heels shall be worn when woodworking, painting, steelworks, tunneling, glass paneling, plastering, concreting, such as: concrete mixing and pouring;
- 2) Masks or safety goggles, trousers and long-sleeved shirts, gloves, boots that cover the heel shall be work when welding and cutting by electrical equipment, gas and other power sources;
- 3) Safety helmets, goggles, mouth masks, gloves, boots that cover the heel or safety boots shall be worn when doing work that involves cutting, removing and hammering;
- 4) Ear protectors shall be worn when working in noise emitting environments in excess of regulator noise emissions;
- 5) When working with poisonous substances safety helmets, safety masks gloves and rubber soled boots shall be worn at all times;
- 6) Safety helmets, safety harnesses and rubber soled boots shall be worn when working from heights; and
- 7) Appropriate personal protective equipment shall be worn while doing excavation and drilling works.

Employers shall appoint a health and safety officer at construction sites that employ 10 or more workers. For 50 workers or more a health and safety committee shall be appointed at the site. Such committee shall comprise directors and experts from all relevant sectors within the site, including an equal number of worker representatives and employer representatives. Health and safety officers shall be qualified or have received training and certified by the relevant authorities.

The Health and Safety Officers and Committees Worker health and safety officers and committees at [construction] sites have the following duties:

- Formulate worker health and safety plans;
- Provide health and safety training within its labor unity;
- Provide health and safety consultation and advice;
- Inspect and maintain safety equipment and personal protective equipment; - Inspect sites and working conditions of workers, if it is found that any danger could arise the health and safety officer shall notify the employer and resolve the situation urgently;
- Undertake risk analysis, search potential causes of accidents and occupational diseases;
- Disseminate legislations or information from the Labor Management Organization to workers periodically including contract parties; and

- In the event of labor accidents and occupational diseases notify the employer and investigate the cause in order to impose preventative measures.

Employers shall appoint a foreman responsible for workplace safety prior to commencement of the works and during the works.

- 1) Shall keep the construction site clean by storing construction materials and equipment in an orderly manner and separate hazardous waste and non-hazardous waste;
- 2) In the event that explosive materials are used in construction works, employers shall organize a safe storage system and ensure that such is not used for other works;
- 3) In the event that workers work at heights in construction sites from 1.5 meters and above, employers shall supply ladders or walkways and fences or strong barriers to ensure safety;
- 4) Employers are prohibited from permitting workers to work during natural disasters, except in safe places or providing disaster relief, herein, the safety of workers shall be considered;
- 5) Employers shall ensure that there is sufficient emergency lighting for use during power-cuts and also erect warning signs at all vehicle access points and assign a signaler to direct vehicles entering and exiting the construction site;
- 6) Signs displaying the telephone numbers of the relevant authorities shall be erected at construction sites for use in emergency situations, such as the telephone numbers of the nearest hospitals, the fire services, etc.;
- 7) Employers shall provide facilities for the following necessary benefits as follows: - Personal protective equipment as provided in Article 35 of this Decision; - First aid kits; - Clean and safe drinking water for all workers; - Toilets, washrooms, and washbasins which are clean and are of a sufficient number and located to worksites and male and female toilets shall be separated; and - Suitable hygienic rest-rooms and canteens and other necessary facilities.

5. National Strategy for the Elimination of Asbestos - Related Diseases (2018-2030) included Visions, Roles, Goals and Principles; Key strategies and priority areas ([Ministry of Health, Department of Hygiene and Health Promotion Ministry of Health, 2018](#)).

The goal is to protect workers and all people from exposure to asbestos and to eliminate the Asbestos related diseases (ARD).

There are 7 keys strategic action plans to reach this goal. Each key strategic action plan has objectives, outcomes and key activities as below:

4.2.1 Key Strategy Action 1:

Set up a national committee on the elimination of ARD and identify the roles and responsibilities, including coordination mechanism of the central to local levels and coordinate with concerned stakeholders to manage the risk that might impact to health of people by asbestos.

4.2.2 Key Strategy Action 2:

Develop policy, decisions and principles on the ban of asbestos, including chrysotile. This key strategy action is targeted to ban all types of asbestos, and includes not importing, distributing or selling asbestos in the country and compliance with regulations related to ARD of relevant ministries such as conventions, decrees, laws, regulations, agreements, and including the developing standards to promote and use alternative substances. Alternatives should have less impact or no impact on health and substitute asbestos in producing roof tiles and other materials.

4.2.3 Key Strategy Action 3:

Setting up an institutional framework, capacity building for enforcement and implementation of policy and regulatory framework on mitigation of asbestos exposure (custom inspection, sampling, testing) to strengthen the capacity, improve knowledge and experience of the staff of concerned

ministries at all levels to have sufficient knowledge and skills, including sufficient number of staff to enforce the endorsed law related to ban asbestos and Abestos Containing material (ACM).

4.2.4 Key Strategy Action 4:

Establishing monitoring, evaluation and disease surveillance framework including to update national asbestos profile, collecting and sharing data and information on asbestos containing material, its imports, production and volume of asbestos containing wastes. This key strategy action is to establish monitoring, evaluation and disease surveillance framework, as well as reports on the management, the use of asbestos and ACM and ensure a National Asbestos Profile is maintained and shared with relevant stakeholders.

4.2.5 Key Strategy Action 5:

Safe removal or demolishing of buildings, and houses that have ACM, worker’s safety and waste management of ACM.

This key strategy action is to strengthen the capacity of concerned ministries, organizations or companies that are responsible for safely removing theACMs from buildings; and for ensuring company owners and workers are aware of the impact of asbestos and ACM, and understand and are able to protect themselves during removal or demolishing the building safely. A company with special permission should handle demolition and safe removal of ACM depending on needs and inspection results. Their workers should receive mandatory training on safe removal process.

4.2.6 Key Strategy Action 6:

Improving capacity for diagnosis, treatment, rehabilitation of disabled people and compensation for ARD patients. This key strategy action is to strengthen the capacity of medical doctors on the diagnosis, treatment, rehabilitation, palliative care and compensation for ARD patients in a fair and sustainable manner.

4.2.7 Key Strategy Action 7:

Carry out research on ARD surveillance and develop a curriculum for university level students. This key strategy action is to collect the scientific evidence on chrysotile asbestosin its relation to asbestosis, lung cancer and mesothelioma. It is unnecessary to repeat studies with the same objective as earlier studies (“metoo” study), but having a “local context” is sometimes justified and necessary. The study to find new cases in earely stage and study prevalence and incidence of ARDs and recommendation to improve surveillance of ARDs is important. Studies may be observational, analytical, screening and other methods. The research should be used to identify problems, solve the issues and allow evidence-based decisions. Asbestos has been used in many products, especially within the industrial sector which may impact to the worker and people, integrating this topic should be integrated into the university curriculum of medical and public health students is necessary.

4.2 Occupational Injury and Disease Statistics

4.2.1 Occupational injury and disease statistics

According to the OSH decree, the OSH unit must report the occupational accidents and diseases to the labour unit and labour management authority for recording, improving and seeking solutions. However, most the statistical data of occupational accidents and injuries currently are from the statistical unit of the Social Security Organization ([National Fund Social Security Organization, 2020](#)) because the employers reported and submitted the claims due to occupational accidents and injuries and it is likely the number of injuries are underreported.

Table 15: Statistic Data of Occupational injuries and fatality cases

	2016	2017	2018	2019	2020

Occupational Injuries	24	20	14	35	
Disability	1	11	5	4	5
Death	2	2		1	

Source: NFSS, 2020

Global Burden of Asbestos

The WHO estimated in 2004 that, at least 107,000 people died each year from ARDs (mesothelioma, lung cancer and asbestosis). Based on trends from 1990 to 2013 provided by the Institute for Health Metrics and Evaluation, University of Washington, USA, the table 16 shows the comparison causes by ARDs and risks within the Lao PDR from 1990 to 2015 ([Ministry of Health, Department of Hygiene and Health Promotion, 2018](#)).

Table 16 Global: GBD2016 (published in 2017) Estimates of ARDs Deaths

Death	1990	1995	2000	2005	2010	2015
Occupational Abestos Cancer	146,844	161,231	172,306	185,360	203,738	222,321
Mesothelioma (occup) - A	15,206	16,722	1995	1995	1995	1995
Lung Cancer (occup) - B	123,231	135,225	143,359	153,540	167,304	181,450
Ovarin Cancer (occup) - C	3,845	4,359	4,754	5,051	5,719	6,022
Larynx Cancer (occup) - D	2,954	3,159	3,194	3,237	3,424	3,743
Asbestosis (occup) - E	1,608	1,939	2,442	2,812	3,185	3,495
Mesothelioma (total) A+F	16,783	18,483	20,493	22,816	26,423	30,208
Mesothelioma (non-occup) - F	1,578	1,762	1,934	2,096	2,317	2,596
% of occupational - A/(A+F)	90.6%	90.5%	90.6%	90.8%	91.2%	91.4%
LC / Meso - B/A	8.10	8.09	7.72	7.41	6.94	6.57
Asbetosis (total)- E+G	1,609	1,940	2,442	2,813	3,186	3,495
Asbestosis (non-occup) - G	0	0	0	0	0	0
% of occupational – E/(E+G)	99.99%	99.99%	99.99%	99.99%	99.99%	99.99%
Total B+C+D+(A+F)+(E+G)	148,422	163,166	174,243	187,456	206,055	224,918

- Source: Lao PDR: Estimates of the burden diseases caused by asbestos; GBD2016 (published in 2017) Estimates of ARDs Deaths.

4.2.2 Coverage by reporting and compensation schemes and estimated occupational injury and disease

According to the OSH decree and the social security law, when an employee suffers an industrial accidents or acute poisoning during the following conditions, benefits and welfare pensions should be reimbursed from the social insurance fund:

- If the injury happened at workplace or in other places when the employee was performing a work-related duty.
- If the injury happened when an employee was preparing work tools and equipment before the actual work or after the daily work
- If the injury or intoxication happened when the employee was on a way to and from work.

The Social Security Scheme tries to compensate and cover all kinds of occupational accidents and injuries for those who have maintained their contribution to the Social Security Scheme. Following an occupational injury, the employer must take the injured person to the hospital and inform the Social Security Scheme (SSS) and record the case. If a major injury, the police are also informed and a report made. The data is incomplete however as not all enterprises with more than 10 employees are members of the said organization. Currently, only occupational accidents have been reported, but occupational diseases, as doctors have not certified whether an accident is an occupational diseases. Further, not all enterprises with more than 10 employees are members of the organization ([National Social Security Fund, 2020](#)). In 2019, SSO featured 2,287 member enterprises with 113,714 insured employees and 7087 voluntary insured persons. Moreover, the total number of beneficiaries (including persons and their dependents) covered by the schemes was 258,102 persons.

Table 17: Coverage of Working Injury and Occupational Disease Insurance

	2011	2012	2013	2014	2015	2016	2017	2018	2019
	No pers	No pers	No pers	No pers	No pers	No pers	No pers	No pers	No pers
Working Injuries and Disease Insurance	80	63	62	75	88	84	110	125	136
Temporary Loss of Work	35	18	28	35	35	28	21	26	57
Permanent Loss of Work	16	3	11	13	19	23	23	4	30
Caretaker Benefit	2	17	-	0	2	3	3	-	5
Funeral Benefit	2	2	7	7	2	2	2	56	
Benefit of the Family of the dead person due to injuries	25	23	16	20	30	28	61	39	44

Source: SSO 5 Years Report, 2020.

Note: Fiscal year- started from October and end of September for each year.

4.3 Legal Compliance Status

4.3.1 Legal compliance status for OSH regulations

Compliance with OSH regulations provide a workplace free from serious recognized hazards and consistent with standards, rules and regulations issued under the OSH decree. The OSH Decree ensure employees have and use safe tools and appropriate and well-maintained equipment. The Decree covers all enterprises (and workers in both informal and formal economic sectors. The Labor management department, and the Occupational Safety and Health committee oversees compliance with the regulations. Workplaces are ranked in priority order on the basis of risks and inspected according to the ranking order. Any worker can complain about the harassment at work, which must be examined by employer and action taken. Employees can notify the Occupational Safety and Health committee of hazardous or unhealthy working conditions and of the absence or malfunctioning of the OHS.

The legal framework of the workplace safety and health however is weak, with few factories or example having OSH committees factories or policies and procedures in place. There were no role and responsibilities assigned for OSH management at workplace or relevant documentation ([International Labour Office, 2020a](#)). A study in the coffee industry and the agriculture sector also found workplace OSH was limited ([International Labour Office, 2020a](#)).

4.4 Problems concerning OSH and Exposure to Specific Hazards

4.4.1 Problems concerning OSH in all and specific industries

Problems concerning OSH in the agriculture sector mainly relate to risks such as slipping/ tripping and falling, and is increased by inadequate footwear and working at a fast pace. Other risks include falling from heights, unguarded machinery, crushing risks, and lack of electrical safety.

The ergonomic risks linked to frequent manual handling of heavy loads with improper lifting methods and poor organization of work-awkward posture/ repetitive movements. Physical risks include exposure to ultraviolet rays and heat, constant loud noise which can lead to have various negative health effects, such as heatstroke, heat exhaustion, heat rashes and dehydration to hearing loss. Biological risks include exposure to vector-borne diseases and parasitic infections, including insect and mosquito bites, snakebites and organic fertilizers. Eye and nose irritations have been reported by workers who lack access to appropriate personal protective equipment. Chemical hazards include exposure to chemical products (fertilizers, pesticides and herbicides). Depending on the type of hazardous chemicals and the duration of exposure, health effects can be acute (such as vomiting, headaches, skin and eye irritation, respiratory distress) and long term (such as cancers, neurotoxicity, liver diseases and allergic dermatitis). Psychosocial risks include long hours of work in industrial mills, which results in fatigue and increases the risk of workplace accidents and injuries (ILO, 2020b).

The OSH problems in the garment factories are mainly due to chemical substances, sewing machines oil, which were not stored properly. Building safety, electricity safety, working behaviors, and Ergonomic hazards (ILO, 2020b). There is limited information on the OSH Problems in other industries such as construction and other industries.

4.4.2 Existing occupational health hazards and possible occupational diseases, and problems in all and specific industries

There is a list of health hazards developed by the MoLSW and ILO and a strategic approach to chemical management. The decision on the Industrial Substance and Chemical Management No 1041/MOIC, DIH issued on 28 May 2012, blue and brown asbestos are from production import, trans-boundary chrysotile that can use under specific conditions if controlled and needs to be registered before imported to Laos (Ministry of Health, Department of Hygiene and Health Promotion, 2018).

The substances and hazardous chemicals are classified into 3 categories:

Category 1: High risk substances and hazardous chemicals are prohibited. This means that importing, using, producing and keeping are not allowed. Exceptions are for scientific research, but the importer/user needs to request to department of industry and handicraft (DOIC) and the government for consideration and approval.

Category 2: Medium risk substances and hazardous chemicals are allowed to be used for running the business, but it needs to be managed before importing or running the business. It needs to be registered and obtain the technical certificate from department of industry and handicraft.

Category 3: Low risk substances and hazardous chemicals are allowed to be used generally, but it needs to be registered with department of industry and handicraft before importing or running a business.

White asbestos (chrysotile) was in the 2nd category of this regulation. This means that chrysotile is allowed to be used, but it needs to be registered and obtain the approval from the department of industry and handicraft before importing or running business.

The key occupational safety and health hazards and risks in the garment factories also identified in an assessment of OSH conditions conducted by the VZF Laos project in January 2019 (ILO, Vision Zero Fund, EU, 2019), include the following:

- a) Fire safety/emergency preparedness (e.g. locked emergency exits, obstructed fire extinguishers)
- b) Electrical safety (e.g. broken wires, unsafe switches)
- c) Machine safety (no safety cover, belt guards, eye guards, lack of boiler maintenance)
- d) Chemical safety (e.g. storage, labeling, MSDS)
- e) Worker protection (workers not provided with PPE or not trained on how to use PPE)
- f) Ergonomic issues (no rest chairs provided for workers who work standing)
- g) Hygiene issues (drinking water quality, toilet cleanliness)
- h) Workplace environment issues (temperature too high, lack of ventilation, high noise levels)
- i) Health & safety issues in dormitories (e.g. electrical safety, overcrowded, cleanliness)

An analysis of the drivers and constraints for occupational safety and health improvement in Lao PDR's coffee sector, conducted in October 2018, identified the following key occupational safety and health hazards at the farm level (phase 1-3):

- a) Safety hazards: injuries from sharp cutting tools, falls and slips, unguarded machinery and moving parts; accidents from motorized vehicles.
- b) Ergonomic hazards: frequent lifting of heavy load; awkward posture; vibrations
- c) Physical hazards: high exposure to ultraviolet rays; constant loud noise
- d) Biological hazards: snakebites; insect and mosquito bites; contamination from organic fertilizer
- e) Chemical hazards: exposure to hazardous chemicals

f) Psychosocial risks: financial insecurity, long hours of work (especially during harvesting) (ILO, Vision Zero Fund, EU, 2019).

Additionally, the analysis established key occupational safety and health hazards at the (post-harvest) primary processing segment:

- a) Safety hazards: unguarded machinery and moving parts; slips and falls; electrocution.
- b) Ergonomic hazards: frequent lifting of heavy load; awkward posture and repetitive movements.
- c) Physical hazards: exposure to ultraviolet rays; constant loud noise
- d) Prolonged exposure to water.
- e) Biological hazards: dust
- f) Chemical hazard: water pollution
- g) Psychosocial risks: long hours of work (ILO, Vision Zero Fund, EU, 2019).

Additionally, the analysis established key occupational safety and health hazards at the (post-harvest) primary processing segment:

- a) Safety hazards: unguarded machinery and moving parts; slips and falls; electrocution
- b) Ergonomic hazards: frequent lifting of heavy load; awkward posture and repetitive movements
- c) Physical hazards: exposure to ultraviolet rays; constant loud noise d) Prolonged exposure to water
- d) Biological hazards: dust
- e) Chemical hazard: water pollution
- f) Psychosocial risks: long hours of work (ILO, Vision Zero Fund, EU, 2019).

List of health hazards and Occupational Diseases

The national list for occupational diseases in Lao PDR is based on ILO list of Occupational Diseases which it was revised in 2010. The first National list of Occupational Diseases for Lao PDR No. 3002/MoLSW, date 16 August 2018. The occupational diseases are classified into 3 categories: 1) Diseases caused by chemical, physical and Biological agents, 2) Diseases caused by target organ, 3) Occupational cancer, and others (Miners' nystagmus caused by low light and underground work). The detail of list of health hazards and occupational diseases are in the chapter 3.5.3, but not currently implemented.

4.5 Measures against Problems concerning OSH

4.5.1 OSH policies and programmes of organizations of employers and workers

As mentioned above, the OSH policies and programmes at the national level include Decree on Occupational Safety and Health, no 22/GOL, dated 5/2/2019. Based on the National OSH decrees, the employers must follow OSH Decree by adopting the preventive measures against. In the article 5, the company should assure the measurement of occupational safety and health according to risk assessment, transparency, justice, equity, and timely, implemented prioritized preventive measures, manage all hazardous and toxic factors during working period. The employer must establish, implementing, follow up each activity in order to ensure occupational safety and health action plan standard at the workplace and improve higher quality to become culture at each step.

However, some working places had no reinforced the implementation of OSH decree as they did not have the OSH committee at the working places and they did not implement the measures of OSH standards. Although some working places had the OSH committees, but they did not function well. There was no hazard and risk assessment conducted. However, there was no training documents or degree or certification from an institution or organization in regard to labor health and safety recognized by the Labor Administration Agency for the review.

4.5.2 Advantages and disadvantages of ongoing activities related to OSH at workplace

There is limited OSH at workplace training as not all companies conducted the OSH training for their employees. There were only the large companies implemented the preventive measures regarding to OSH problems. The advantages of ongoing OSH activities are to prevent the work-related injuries and occupational diseases that could save lives and budget resources.

4.5.3 Educational and awareness-raising arrangements to enhance preventive safety and health culture, including promotional initiatives at workplace

The Social Security Project in cooperation with the Social Security Department, celebrated World Day for Safety and Health at Work in 28 April, 2013, but these campaigns are not implemented regularly. Some large companies organized the Day for Safety and Health in their enterprises such as Namtheun Hydropower and Phoubia mining companies.

According to the OSH Decree, the company or employer must establish, implementing, follow up each activity in order to ensure OSH action plan at the work place and improve quality to became culture at each step (Article 11) and they must create conditions to all employees to obtain training on OSH at the workplace (Article 15). And each labor unit with 101 to 1000 employees must have one OSH officer but this is not enforced. Most companies investing in OHS joint venture or managed by international or foreign executive personnel such as Lao Brewery, Trimax Garment factory, Trio Export (Laos), Mining Companies. However, some companies did not conduct the OSH training to increase the awareness of preventive safety and health. As a study conducted by ILO at the garment factories found that the factory stated that OSH training and awareness were provided to the workers such as First Aid training, firefighting, and fire drill. However, there was no training documents available for the review.

4.6 Researches in OSH

4.6.1 List of specialized technical, medical and scientific institutions with linkages to various aspects of OSH, including research institutes and laboratories concerned with OSH

Lao PDR does not have an occupational safety and health independent research organization to evaluate occupational hazards and risk factors, to study negative health outcomes of these risk factors, to control hazardous risk factors, to reduce these risks through intervention, and to evaluate outcomes.

The main institutions linked to various aspects of OSH, including research institutes and laboratories concerned with OSH consists of the National Occupational Safety and Health Center, Division of Environmental Health, Department of Hygiene and Health Promotion, MOH, Faculty of Public Health, University of Health Sciences. Additionally, ILO, WHO and other funding agencies hired the private consultants to conduct the OSH researches.

Division of Environmental Health, Department of Hygiene and Health Promotion, MOH consists of 10 staff and there is only 1 staff responsible for OSH. However, they did not have enough staff involving in the OSH training and conducting the researches. The division is responsible for all issues related to occupational health in the workplace.

Faculty of Public Health, - University of Health Sciences (UHS)

The Faculty of Public Health has conducted some studies on the health impact of using pesticides among agricultures and gardeners. In terms of OSH, the Faculty of Public Health, UHS has tools for checking air (given by an international organization/no further details) which are used to educate students.

Lao Tropical Institute and Public Health (LaoTPHI)

The Ministry of Health established the Lao Tropical and Public Health Institute (Lao TPHI) in 2017 by merging the National Institute of Public Health (NIOPH) and the Francophony Institute for Tropical Medicine. The Lao TPHI serves as the technical body of Ministry of Health in promoting, managing, and conducting health research and building human resource for health management and tropical medicine and international health. The LaoTPHI did not carried out any researches in OSH (Anonymous, Available at the website: <http://www.laohrp.com/index.php/hrp/about>).

Institut Pasteur du Laos (IPL)

IPL is the result of a long term and joint decision between Lao Ministry of Health and Institut Pasteur Paris. Sustainability will be achieved by preparing a new generation of Lao doctors and scientists to fill key positions as heads of laboratories and administration at IPL. IPL did not carry out any occupational health and safety research. It has a mandate from Lao Ministry of Health to fulfil activities of public service:

1. Research and diagnostic on emerging infectious diseases and vector borne diseases
2. Training, Education and Capacity building
3. Technical assistance to National Center for Laboratory and Epidemiology (NCLE) for investigation of epidemics (Anonymous, Available at the website: <http://www.laohrp.com/index.php/hrp/about>).

4.6.2 Main research items and projects in OSH research and which institutions implement these (national level / institutional level)

Available OHS research has included: 1) a survey on working conditions on small construction sites; 2) Research on mining artisanal of the effect of mercury; 3) Safety and Health in Lao PDR Supply Chains.

In 2003, as an example, a survey on working conditions on small construction sites was implemented. The main findings were that most construction workers had a very low level of education and a poor understanding of OHS and their rights.

Research on mining artisanal of the effect of mercury which aimed to strengthen Lao PDR's national capacity to ratify the Minamata Convention and implement it effectively to reduce, and feasible eliminate mercury use, emissions and releases from the Artisanal and Small-scale Gold Mining (ASGM) has been conducted. The study showed overall low household awareness of the

potential health implications of exposure to mercury. e Rural communities and the communities that are dependent on ASGM, are at risk for exposure to MeHg resulting in detrimental health effects, particularly to pregnant women and their developing fetus. In utero exposure to Hg results in irreversible neurologic damage which persists through adulthood. Small children are also more susceptible to the health risks of elemental and methylmercury (Ministry of Natural Resources and Environment, 2019; Andre R., Florence P., Tayphasavanth F., Vanphanom S, 2004).

Safety and Health in Lao PDR Supply Chains is a project about the assessment of drivers and constraints for OSG improvement in global supply chains and intervention design in the garment factories and coffee industry which was funded by the Vision Zero Fund project (ILO, 2020).

4.7 Status for Personnel engaged in the area of OSH

4.7.1 Ability and challenges of personnel engaged in the area of OSH

There are a limited number of OSH personnel and the exact numbers of such OSH officers are not available. There are more than 10 OSH experts however who have been trained abroad and returned to the country, but they did not work directly in OSH.

The ability of the personnel engaged in OSH at the national and provincial level is limited. There are provincial OSH committees although they do not function well, only few districts have the district OSH committee. Based on interviews with garment factory Administrative/human resource manager stated that one person was appointed as OSH officer for the factory in Lao PDR, however, there was no training documents or degree or certification from an institution or organization in regard to labor health and safety recognized by the Labor Administration Agency for the review (ILO, 2020b).

4.7.2 Training and information for OSH personnel engaged in the area of OSH

In the decree on Occupational Safety and Health, Article 15, the employer must create conditions for all employees to obtain training on occupational safety and health at the workplace. including where employees are assigned to a different role.

The National Occupational Safety and Health Center of the Lao PDR (NOSHC) established by the government based on proposal from the minister of the Ministry of Labor and Social Welfare play a central role on coordination and support the National Occupational Safety and Health. It has functions as secretarial of the Ministry of Labor and Social Welfare in conducting research, develop rule and regulation, standard, analyzing, teaching, trainings, service providing, support and promote occupational safety and health activities based on direction and policy, socio-economic development plans and also act as a technical center under the organizational structure of the Ministry of Labor and Social Welfare. The NOSHC including public and private educational institution must train OSH specialist in order to ensure every areas of work such as: engineering, hygienist, OSH physicians and nurses, and OHS researchers. The Department of Labour, MoLSW and the Lao Federation Trade Union also provided the OSH trainings.

Due to the limited number of trainers on safety and health, the coverage of OSH training remains limited.

The “National OSH Training Center”, responsible for training on SME (small and medium-sized enterprises) promotion – provides OSH training and advice and is expected to generate income.

The fee for training is charged to participants who are members of the Branch organizations of the Lao National Chamber of Commerce and Industry (LNCCI), but has limited coverage.

The ILO supported the MoLSW in organizing OSH training workshops for small enterprises and construction sites. The ILO Social Security Project supported several trainings on OSH (participants came from Lao Federation of Trade Union and Social Security Organisation and Department), such as Training of Trainers, Follow-up activities. The same project also provided assistance to the trained trainers in organizing OSH training workshops at the enterprises. In the past, there was only one activity in OSH training which was supported by the German Technical Agency (GTZ). The Department of Higher Technical and Vocational Education introduced the Multiplier Training System to upgrade the teaching skills of the Vocational Teachers (ILO, 2011a).

The Ministry of Industry and Handicraft, in cooperation with international organizations such as the Project “Cleaner Production” of Denmark, occasionally conducted training packages containing OSH topics. Two years ago OSH training was conducted in the provinces with funding from the national budget. No further details are available as the training was planned and organized by the international organizations. The Ministry only coordinated the activities.

The Lao Federation of Trade Union is an organization represents the employees which has right and obligations to the Occupational Safety and Health as following:

5. Involve in study and consultation meeting to develop and modify policies, law and regulation on occupational safety and health;
6. Training, , encourage, raise awareness raising and support employees, representative of employees, trade union units at work to implement the law, regulations relevant to Occupational Safety and Health;
7. Provide a consultancy and information to the employees, the representative body of the employees and trade union unit at the workplace;

The Lao Federation of Trade Union in cooperation with Union Aid Abroad APHEDA from Australia is organizing advanced workshops on OSH and OSH Monitoring and Evaluation approaches. During the past, they organized 14 training courses with 507 participants, of which 354 were women. The WISE training method OSH programme for the construction industry was also introduced. Several training workshops on Work Improvement in Small Construction (WISCON) were conducted to upgrade the understanding of OSH for the inspectors of the MoLSW. There were more than 20 WISE trainers who participated at the first WISE training of trainers in August 2000 (Lao Federation of Trade Union, 2019).

The representative body of the employers as National Chamber of Commerce and Industry has obligations on the works of occupational safety and health as following:

- 1) Involve in the study and consultation meeting to develop and modify policies, law and regulation on occupational safety and health;
- 2) Encourage and support employees, business associations, business groups to implement the laws and regulations on occupational safety and health;
- 3) Provide OSH advice, knowledge, and information to the employers, business associations, business groups, and other agencies under the membership.
- 4) Perform other duties and responsibilities as roles and functions indicated in the law.

Some big and large companies hired the OSH personnel from overseas to operate and work at their companies. There are no long-terms training for occupational physician, occupational hygienist, nurses and others.

4.8 Status for International Certification at Workplaces

4.8.1 Status for international certification at workplaces (e.g. ISO 45001)

There are no International Certification at Workplaces yet in most of companies in Lao PDR, except the big companies such as the Beer Lao and Mining companies received the International Certification at Workplaces. The 10 Conventions are ratified by ILO in Lao PDR. Lao PDR has been cooperating with several international organizations on occupational safety and health. Lately, this collaboration has expanded noticeably. For instance, WHO is one of the key organizations that supports a healthy work place campaign, occupational health surveillance and advances in information technology, improvements in occupational health research in Lao PDR.

The International Labour Organization also has been working in building capacity on occupational safety and health, giving recommendations on advanced methodologies for further actions, organizing international workshops and seminars, and building a national capacity training program. According to the tripartite rule, the International Labour Organization works collaboratively with the government and private employers.

An occupational safety and health bipartite cooperation is also functioning at a sufficient level. For example, from 2018-2020, a bipartite cooperative contract was made between the Ministry of Labour and Social Welfare and the Korean Occupational Safety and Health Agency (KOSHA). As a result of the bipartite cooperative contract, consultants worked in particular organizations, short-term trainings were organized on labour and occupational safety and health, an introductory travel took place, and a technical support in improving communication and advertisement was expanded.

4.9 Worker's Awareness and Educational Levels regarding OSH

4.9.1 Worker's awareness and educational levels regarding OSH

Basically, the government created a legal environment to improve health education, to promote health, to adopt healthy behaviours, and to advertise health education and information. According to OSH Decree, all employees should receive SOP of tools, equipment and material as appropriate for works that oneself responsible for and follow instruction and manual of occupational safety and health. Labor unit, workplace, and relevant organization have responsibility for distributing information, rising awareness to employees to have knowledge on prevention, avoid hazardous thing which might impact health or the employee and other people surrounding. However, not all the labor units provided the training on OSH to their employees. According to the survey by ILO, most workers did not have knowledge of OSH as they have not been trained for OSH and not all companies provided OSH training before starting working (ILO, 2019).

Chapter 5 Analysis and action plan

5.1 Gaps analysis of existing national OSH systems and Recommendations of Action Points

5.1.1 Gaps analysis of existing national OSH systems

- OSH legislative framework is not functioned well and not reinforced to be implemented throughout the country. Currently, there are OSH Decree, 1st National OSH Strategy (2005-2010), 2nd National OSH Strategy (2011-2015 and until 2020), there were no development of the 3rd National OSH Strategy (2021-2025) yet.
- Weak implementation of OSH inspection, as the Department of Labour Management has inadequate OSH inspectors interm of quantity and quality.
- Lack of link or integration of National OSH programme with other national development plans.
- OSH is not fully integrated into the health care system as the health care system is provided the overall health care services, but there are no specific occupational diseases. Occupational health services, health care and rehabilitation systems co-operate in a timely manner in preventing work disability and restoring the workability.
- Not all employers have organized OHS committees regardless of the size of the companies; most of the big companies organized the OSH committees. The OSH authorities did not investigate the serious occupational accidents and major cases of occupational diseases.
- Lack of specific OSH Institution and Organizations responsible for OSH. Currently, there is small division of OSH inspection under Department of Labour Management, MoLSW supervises and oversee OSH inspection in the country.
- Low coverage of SSO as not all employers applied to be the members of SSO. The system for identifying and compensating for occupational diseases does not appear to function in practice.
- Lack of recording and reporting system of Occupational injuries and accidents. There is no specific organization responsible for the statistic of Occupational injuries and accidents. All injury cases were reported only to SSO for clamming health insurance.
- There is a list of occupational diseases and health hazards, but not yet implemented in the health services, as the doctors did not diagnose the diseases related to work as the occupational diseases.
- Low priority of OSH in the national agenda among policy makers and NA members.

5.1.2 Recommendations of action points for national OSH systems

- **Increased enforcement of the Labor law and OSH Decree.** The MoLSW and the tripartite Organization should actively function and should monitor the implementation of OSH decree at the working places, assure measurement of OSH according to risk assessment, implemented prioritized preventive measures, manage all harzadous and toxic factors. The triparties should organize the policy and social dialogue at the sectors level (Industrial Group, Transport and Logistics Group, Private Service Sector Group and Local Public Sector Group). The sector groups and the occupational safety and health committees should carry out the campaigns and plan publishing activities and training courses. There should be reinforced the employers and employees to cooperate in improving and maintaining safety in the workplaces. OSH matters are discussed between the employer, the employees or their representatives.

- **Increased enforcement the OSH inspection and monitoring** by increasing the capacity of OSH officers and OSH inspectors and the number of OSH officers and inspectors in the country. There should be the inspection of OSH inspectors of all business enterprises once per year.
- **Efforts will also be made to link the National OSH programme** with other national development plans to ensure more effective national buy-in and implementation.
- There is also a need for an **information campaign at governmental level**, e.g. with key policy makers and members of the National Assembly, to increase awareness amongst policy-makers of the benefits of social protection cover and to increase political willingness to ensure that both MoLSW and NSSF duly carry out their enforcement responsibilities.
- There is also a need for an **information campaign at governmental level**, e.g. with key policy makers and members of the National Assembly, to increase awareness amongst policy-makers of the benefits of social protection cover and to increase political willingness to ensure that both MoLSW and NSSF duly carry out their enforcement responsibilities.
- **Increased enforcement of the law of Social Security.** The National Social Security Fund (NSSF) should discuss approaches to stronger enforcement with the Ministry of Industry and Commerce (Business Licence Division) and the Tax Agency to reinforce them to be the member of SSO.
- **There is a need to improve the OSH statistics and set up the notification and registration system for occupational accidents and occupational diseases.** An overall review of existing systems for recording, notification and reporting of injuries and illnesses is urgently needed in order to establish a coherent and effective data collection system while eliminating redundant data and procedures. In the long run, this would work towards developing a common basis for nationally and internationally comparative data and the Department of Labor Management should be the focal point for OSH statistics. The scope for improvements in data collection, analysis and dissemination is enormous and, hopefully, concerted efforts on the following issues will bring significant improvements in the years to come.
- **There is a need to legislate** the occupational diseases, and list of occupational diseases.
- **Strengthening OSH inspector management system.** There is a need to be strengthening of the labour inspection function and capacities. The level of fines (in the Decision of the Minister on the Organization and Functions of Labour Inspectors) should also **be increased** so that it reflects a genuine sanction.

5.1.3 Support needs assessment of national OSH systems from Japanese government

- **Technical Support for establishing the OSH statistic system** in recording, notification and investigation of occupational accidents and diseases and accidents, dangerous occurrence and incidents and the compilation, notification and investigation.
- **Increased enforcement the OSH inspection and monitoring** by strengthening the capacity of OSH officers and inspectors.
- **Provided equipment for OSH inspection.**

5.2 Gaps analysis of current OSH Management at workplaces and Recommendations of Action Points

5.2.1 Gaps analysis of current OSH management at workplaces

- Almost all provincial health department have no occupational health unit or focal point.

- Surveillance/Screening/Risk assessment/Return to work/Others at the workplace are still limited.
- Lack of employer's awareness on OSH at the working place. Some enterprises did not set up OSH committee and OSH standard at the working place in promoting workability and preventing work-disability. The Committee represents the main forum for collaboration at the enterprise and workplace level between workers and employers on OSH issues, however, the OSH committees are not functioned well at the enterprise level. Establishing OSH committee is limited, even though, in some working places, the OSH committee conducted the regular meeting with minutes. However, it was not functioning as the committee didn't conduct the hazard assessment at workplace with implementation of corrective action plan; eliminating hazards and when this is not possible, minimizing them or substituting with less hazardous means; arranging collective safety measures – ahead of individual-based procedures; Evaluating the effectiveness of the health and safety measures undertaken; Continuously following-up and monitoring working conditions.
- Lack of development of OSH policy, OSH management system documentation, communication, planning and implementation at the working places.
- Limited of OSH officers at the working places. Small enterprises do not follow the OSH decree on OSH officer at the working place.
- Lack of OSH standard and National Guidelines on occupational safety and health management systems.
- In addition, the OSH committee procedure, roles and responsibilities of the OSH committee members were not clearly defined. Lack of OSH guideline at the working places.
- The level of coverage for social insurance of the occupational diseases for the small enterprises with less than 10 workers generally is quite low in Lao PDR (i.e. as a percentage of those who should be covered). The coverage is higher where this is required by buyers and/or where the employer/ investor is a foreign company. The level of coverage appears particularly low especially given that there is a high level of informal workers who may only be eligible for voluntary insurance.
- Lack of system of recording and reporting OSH injury at the working place. The availability and quality of data of occupational injuries is limited and there is also limited co-ordination and sharing of data between key agencies.
- Lack of awareness of workers on OSH and World Day Safety and Health as employer did not provide introductory OSH training at the working place.
- Lack of health promotion and well-being at workplace such as work-related stress, alcohol and drugs abuse, violence (both physical and psychological) and HIV/AIDS all lead to health-related problems for the worker and lower productivity for the enterprise or organization.

5.2.2 Recommendations of action points for OSH management at workplaces

- Reinforcement of the employers to **implement the Decree of OSH at their working place**. For example, one OSH officer per company with more than 100 employees and health specialist related to OSH and OSH committee should be set up. The manager of the company should ensure that all the aspects of OSH decree is implemented, especially training on occupational health and safety at the workplace. This will ensure that employers follow the standards in protecting their workers and providing safe working conditions.

- **The employers should set up an OSH policy, organizing, planning and implementation, evaluation and action improvement.** The OSH Policy include writing an OSH policy, and worker participation. The OSH organizing encompasses the responsibility for the protection of workers' safety and health, and provide leadership for OSH activities in the organization, competence and training, OSH management system documentation, communication. The planning and implementation include initial review, system planning, development and implementation, OSH objectives, hazards prevention. The evaluation consists of performance monitoring and measurement, investigation work-related injuries and occupational diseases, audit and management review.
- There is a need to **develop of new managerial cultures** and modern leadership, giving high value to OSH and well being at work.
- Promote the concept of **Basic Occupational Health Services (BOHS) delivery**, which would train health personnel on the diagnosis of occupational diseases at community level and on providing not only curative but also preventive care.
- There should be developed and approved OSH standard and National Guidelines on occupational safety and health management systems.
- There should establish an inspection mechanism along with the provision of training.
- There is also a need for an **information campaign for World Day Safety and Health at the working place.**
- There should provide the **interactive educational programme based on a training of trainer's** methodology designed to assist in the development of policy and action to address health promotion measures at the workplace in the framework of an enterprise OSH policy.
- There should **set up the notification and recording system of the work-related injuries and occupational diseases at the working place** and report to the Department of Labor management, Ministry of Labor Social Welfare.

5.2.3 Support needs assessment of OSH management at workplaces from Japanese government

- Capacity building of OSH officers.
- Assist to develop the OSH policy, organizing, planning and implementation, evaluation and action improvement at the working places.
- Develop the OSH guideline and develop the Educational and awareness-raising instruments.

5.3 Gaps analysis of existing Professional Education for Personnel engaged in the area of OSH and Recommendations of Action Points

5.3.1 Gaps analysis of existing professional education for personnel engaged in the area of OSH

- Not all employers provided OSH training to employees and no recording of training at the working places;
- Inadequate OSH inspectors and officers training, there are no regular OSH inspection training for OSH inspectors.
- There were also lacked of physicians who diagnose occupational or work-related diseases to report these cases to the OSH inspection;

- Limited of abilities of OSH personnel as OHS officers have no the capacity to respond to the health and capacity challenges in the workplaces in terms of quantity and quality OSH personnel;
- No long-term training on OSH in the country as there are no occupational health physician, Occupational health nurse, and Occupational hygienist.

5.3.2 Recommendations of action points for personnel engaged in the area of OSH

- The employers must provide the general induction training; Job-specific training e.g. manual handling, hazardous substances, plant, noise, office ergonomics, and accident reporting to all employees.
- There should have **disseminated OSH information through several channels**: web site and social media, brochures, posters, etc... The information sharing covers multidisciplinary topics such as safety, work ability, occupational health services, ergonomics, mental health at work, chemical safety, etc.
- There should have the **short training courses to safety managers** which cover the necessary topics to fulfill the fields of competency. These fields are: targets of OHS at workplace; OHS legislation and agreements; tasks and duties and responsibilities in the workplace; OHS cooperation in the workplace; information sources, research and advisory bodies; accident prevention; preventive methods; working ability and well-being; ergonomics; work hygiene; physical and chemical agents in the workplace; psycho-social work environment; safety management.
- There is a need to **develop recognition and identification of occupational diseases**. Further work is needed in relation to the list of occupational diseases so that these are linked to types of work recognized to cause such diseases. There is also a need to develop the expertise to diagnose occupational diseases.
- There is also a need for **training of medical practitioners on the diagnosis of occupational diseases** to be specialist in occupational health care, thus, the curriculum of training of occupational physicians should be developed.
- For short-terms, there is a need **for short training courses (3 to 6 months) to produce OSH staff to build the capacity of OSH officers and OSH inspectors**. OSH training required for those persons conducting OSH verification activities, e.g. OHS committee training, first aid training, bio-safety and radiation safety training.
- There should **strengthening the National OSH Training center** in order to provide OSH short trainings for the country.
- There is a need for further consultation and study to identify **how to improve protection for informal workers, e.g. through the provision of BOHS**.
- For long-terms, there should have training on OSH at the bachelor and master level to increase the number of OSH officer to work as OSH officers at the working places. There is a need to produce Occupational health physician, Occupational health nurse, and Occupational hygienist. Thus, there is a need to develop the curriculums for OSH hygienist, nurses and Occupational health physicians.
- There is a need to conduct the studies to establish the types of occupational injuries/diseases and the impact of the current biological and chemical risks among staff in the mining and energy, and agriculture (using the pesticides) sector industry.

5.3.3 Support needs assessment of personnel engaged in the area of OSH from Japanese government

- Assist to develop the **curriculum of OSH at the bachelor degree such as occupational health** physician, occupational health nurse, and occupational hygienist, ergonomists, physiotherapists.
- Provide the **short training of general physicians** to be specialized in the Occupational health physician.
- There should **strengthening the National OSH Training center** in order to provide OSH short trainings for the country.
- Providing **scholarships for OSH training to study abroad** such as in Japan such as Occupational health nurse, Occupational hygienist, Ergonomists, Physiotherapists.

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研究成果の刊行に関する一覧表

1. 深井航太、酒井咲紀、伊藤遼太郎、伊藤直人、小田上公法、Jhason John J. Cabigon、Paul Michael R. Hernandez、小林祐一、森 晃爾. フィリピン共和国の労働衛生に関する制度および専門職育成の現状－日系企業が海外拠点において適切な労働衛生管理を実施するために 産業衛生学雑誌 2020 62(4): 154-164
2. 石丸知宏、廣里治奈、森貴大、伊藤直人、平岡晃、簗原里奈、梶木繁之、上原正道、小林祐一、森晃爾. インドの労働衛生に関する制度および専門職育成の現状 - 日本企業が海外拠点において適切な労働衛生管理を実施するために. 産業衛生学雑誌 2020 62(3):136-145
3. 伊藤直人、森晃爾. 諸外国における労働安全衛生の現状 カンボジアの労働安全衛生の実情. 安全衛生コンサルタント 2020 135: 74-77

令和 3年 3月 18日

厚生労働大臣 殿

機関名 産業医科大学

所属研究機関長 職名 学長

氏名 尾辻 豊 印



次の職員の令和2年度厚生労働科学研究費の調査研究における、倫理審査状況及び利益相反等の管理については以下のとおりです。

- 研究事業名 労働安全衛生総合研究事業
- 研究課題名 アジア新興国の労働者の安全衛生の取り組み促進の支援に係るニーズ等の把握のための研究
- 研究者名 (所属部局・職名) 産業生態科学研究所・教授
(氏名・フリガナ) 森 晃爾・モリ コウジ

4. 倫理審査の状況

	該当性の有無		左記で該当がある場合のみ記入 (※1)		
	有	無	審査済み	審査した機関	未審査 (※2)
ヒトゲノム・遺伝子解析研究に関する倫理指針	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
遺伝子治療等臨床研究に関する指針	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
人を対象とする医学系研究に関する倫理指針 (※3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
厚生労働省の所管する実施機関における動物実験等の実施に関する基本指針	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
その他、該当する倫理指針があれば記入すること (指針の名称:)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

(※1) 当該研究者が当該研究を実施するに当たり遵守すべき倫理指針に関する倫理委員会の審査が済んでいる場合は、「審査済み」にチェックし一部若しくは全部の審査が完了していない場合は、「未審査」にチェックすること。

その他 (特記事項)

(※2) 未審査の場合は、その理由を記載すること。

(※3) 廃止前の「疫学研究に関する倫理指針」や「臨床研究に関する倫理指針」に準拠する場合は、当該項目に記入すること。

5. 厚生労働分野の研究活動における不正行為への対応について

研究倫理教育の受講状況	受講 <input checked="" type="checkbox"/> 未受講 <input type="checkbox"/>
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6. 利益相反の管理

当研究機関におけるCOIの管理に関する規定の策定	有 <input checked="" type="checkbox"/> 無 <input type="checkbox"/> (無の場合はその理由:)
当研究機関におけるCOI委員会設置の有無	有 <input checked="" type="checkbox"/> 無 <input type="checkbox"/> (無の場合は委託先機関:)
当研究に係るCOIについての報告・審査の有無	有 <input checked="" type="checkbox"/> 無 <input type="checkbox"/> (無の場合はその理由:)
当研究に係るCOIについての指導・管理の有無	有 <input type="checkbox"/> 無 <input checked="" type="checkbox"/> (有の場合はその内容:)

(留意事項) ・該当する口にチェックを入れること。
・分担研究者の所属する機関の長も作成すること。

令和 3年 3月 18日

厚生労働大臣 殿

機関名 産業医科大学
所属研究機関長 職名 学長
氏名 尾辻 豊 印



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(氏名・フリガナ) Odgerel Chimed-Ochir・オドゲレル チメドオチル

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(留意事項) ・該当する□にチェックを入れること。
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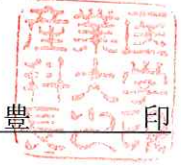
令和 3年 3月 18日

厚生労働大臣 殿

機関名 産業医科大学

所属研究機関長 職名 学長

氏名 尾辻 豊 印



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3. 研究者名 (所属部局・職名) 産業生態科学研究所・助教

(氏名・フリガナ) 石丸 知宏・イシマル トモヒロ

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